

NOTICE OF DECISION

Ted Jenneskens 22946 SE 53rd Street Issaquah, WA 98029

> Al Erickson 1670 Brookside Drive SE Issaquah, WA 98027

PROJECT: Croston Lane Short Plat APPLICATION: Short Plat: SP14-00003

DATE OF DECISION: April 29, 2015

REQUEST: Subdivide a 46,985 square foot (1.08 acre) parcel into four single family residential lots, each lot 8,710 SF in area. Proposal includes two (2) tracts: Tract A (stormwater tract) - 8,289 SF and Tract B (drainage/utility easement) - 780 SF. The south portion of the site includes a steep slope critical area (approximately 13,690 SF) with slopes greater than 40%. The applicant has provided supporting geotechnical information to reduce the steep slope buffer from 50 feet to 10 feet, plus a 15-foot building setback. The steep slopes would be protected with a Native Growth Protection Easement (NGPE) on the lots. The residential lots would be accessed off SE Croston Lane.

The short plat subdivision will allow a new single family house to be constructed on each lot.

LOCATION: The project is located at approximately 515 SE Croston Lane

SUBAREA: The property is located within the "Olde Town" subarea.

COMPREHENSIVE PLAN DESIGNATION:

TO:

"Low Density Residential" by the City's Comprehensive Plan's Use Designation Map, as amended June 16, 2014, Ord. 2714.

PARCEL NUMBER:

342406-9016 46,985 square feet (1.08 acres)

SITE AREA: ZONING:

"SF-SL" (Single Family Small Lot)

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property has not been subdivided within the last 5 years.

- 9. Tree retention requirements are required for subdivisions, including short plats, per IMC 18.12.1385. 30% of the total caliper (dbh) of all significant trees in the developable site area is required. The tree retention is shown on Sheet 4 of 4. Trees in the Critical Areas steep slope area on the southern portion of the property are protected and those trees in the critical area and the critical area buffer do not count towards the tree caliper requirement for retention. The drawing provided included the entire site and trees within the critical area and buffer and indicates a caliper retention of 59.7%. This percentage is incorrect for what is required to be retained. Additional trees within the developable area may need to be retained or a modification to the tree retention requirements sought.
- 10. The Short Plat must meet the requirements of IMC 18.13.380 "Design Standards":
- A. Lands which the Planning Director/Manager has found to be unsuitable due to flood, inundation, or swamp conditions likely to be harmful to the safety, welfare and general health of the future residents, and the Planning Director/Manager considers inappropriate for development, shall not be subdivided unless adequate means of control have been formulated by the applicant and approved by the Public Works
- Response: The site contains critical areas of a steep slope at the southeastern portion of the property. This steep slope area will count towards the required minimum lot area, but will be retained in a Native Growth Protection Easement (NGPE). In addition, a NGPE buffer from the toe of the steep slope will be in place.
- B. The applicant shall furnish a soil test if required by the Public Works Director, The Public Works Director shall determine whether control measures are warranted. The applicant shall be responsible for the design, installation and expense of any device or corrective measures subject to the approval of the Public Works Director.
- Response: A soils test was not required for the Croston Lane Short Plat. Soils reports will be required with building permits for the future houses proposed on the site. A geotechnical assessment for subsurface infiltration and slope stability was conducted by Geotech Consultants, Inc.
- C. All lots shall abut upon or have adequate access, by easement or private road, to a dedicated or deeded public right-of-way. In the event that an existing abutting public right-of-way does not meet the minimum width standards, additional right-of-way may be required prior to approval of a short subdivision.
- Response: All 4 of the lots will have direct access onto a public street, that being SE Croston lane. The street standards of Croston Lane are currently not met. The applicant will be required to dedicate for the street improvements. The improvements will include construction of a 5'wide sidewalk and construction of a 5 foot wide planter between the street and the sidewalk that will be landscaped with trees and ground cover. Existing PSE power poles in that area will also need to be
- D. The minimum land area for each lot shall be no less than the minimum allowed by

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The Development Services Department conditionally approves the application for the Croston Lane Plat, application SP14-00003. Approval of the application is based on the submittal made on July 14, 2014, and is subject to the following conditions:

SEPA Mitigation Measures:

- 1. The applicant shall submit a geotechnical report evaluating specific building plans and grading plans prior to the issuance of construction and building permits. The geotechnical report shall follow City of Issaquah Development Services "Soils Report Requirements." A third-party independent review of the geotechnical report may be required at the applicant's
- 2. The outer extent of the steep slope buffer shall be marked in the field with construction fencing to prevent clearing, grading and construction activity from encroaching into the buffer. Fencing shall be installed prior to starting clearing and grading activity.
- 3. A split rail fence shall be installed at the outer edge of the steep slope buffer to prevent encroachment into the critical area from future residents.
- 4. Permanent survey markers shall be installed to delineate the boundary of the steep slope buffer from the remaining lot area.
- 5. The steep slope and buffer area shall be shown on the short plat plans as a Native Growth Protection Easement (NGPE) and the plans shall include text to protect the steep slope critical area in perpetuity.
- 6. Clearing and grading activity shall be outside the critical root zone of retained trees. Approved tree protection measures shall be in place prior to any other construction or demolition activities. They may be installed in conjunction with limits of clearing and grading
- 7. The applicant should mitigate for potential impacts on public services with a voluntary contribution for the General Government Buildings and Police Mitigation Fees. Applicant objections to the voluntary payment should be made during the SEPA comment period. The mitigation fee is to be paid prior to issuance of building permits and the actual fee amount is determined at that time.

Short Plat Conditions

- 8. A 10-foot steep slope buffer from the base of the steep slope shall be shown on the plans and included in the Native Growth Protection Easement (NGPE).
- 9. Tree Preservation: Retention of 30% of the total caliper of significant trees (6 inches caliper d.b.h. and greater) is required. The tree retention is required outside of critical areas and associated buffers. Sheet 4 (Tree Retention Plan) shows trees preserved in the steep slope area, which is required for steep slope areas but is not allowed toward the tree retention requirement. The applicant shall submit a revised Tree Retention Plan demonstrating retention of 30% of the total caliper of significant trees outside the steep slope critical area and buffer. The revised Tree Retention Plan shall be approved prior to issuance of
- 10. Impact and mitigation fees will be due with the issuance of Building Permits for each of the new lots, including 1) Transportation Impact Fee, 2) Schools Impact Fee, 3) Parks Impact Fee, 4) Fire Impact Fee, 5) General Government Mitigation Fee and 6) Police Mitigation Fee and or as amended by the Issaquah Municipal Code.

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this Code (District Standards Table, IMC 18.07.360) for the specific zone in which the proposed short subdivision is planned to be located, plus any additional area to be used for access easement and/or private roadway.

Response: The proposed lots are all rectangular sided, 52 feet wide by 167.5 feet in length. There is no minimum lot width. The lots each contain 8,710 square feet and the minimum square footage of the SF-SL zone is 6,000 square feet. The square footage and acreage of the 4 lots and tracts are:

PROPOSED LOTS:	LOT AREA:
• Lot No. 1:	8,710 square feet (0.2 acre)
 Lot No. 2: 	8,710 square feet (0.2 acre)
 Lot No. 3: 	8,710 square feet (0.2 acre)
 Lot No. 4: 	8,710 square feet (0.2 acre)
Tract A:	8,289 square feet (0.2 acre)
Tract B:	780 square feet

- 11. The proposed Short Plat will create 4 lots and 2 tracts as identified on the Short Plat drawings, Exhibits. The 4 lots proposed are currently undeveloped. A house is located on the lot to the west adjusted by Lot Line Adjustment No. LLA14-00003, but is not part of this short plat. Chapter 18.07.360 of the Issaquah Municipal Code contains the development standards by the SF-SL zoning of the property including pervious/impervious surface ratios, building setbacks and building heights. Those development standards will need to be complied with under future Building Permit review. Compliance with setbacks to the Critical Areas regulations will also need to be complied with.
- 12. The property contains "Critical Areas", including steep slopes in the southeastern portion of the property. Steep slopes are regulated Critical areas regulated by IMC 18.10.580. Steep slopes requires buffers of 50 feet from the top or toes of slopes 40% in grade or steeper plus a building setback of 15 feet from the outer edge of the steep slope buffer. Steep slope buffers may be reduced to a minimum of 10 feet pursuant to a critical areas study including assessment criteria outlines in IMC 18.10.580-3. A geologic assessment of the property was received from Geotech Consultants on July 14, 2014 to analyze infiltration and slope stability and addressing a request to reduce the steep slope buffer from 50 feet to 10 feet. The City conducted a peer review (Amec Foster Wheeler) of the geotechnical reports and concurred with the analysis and recommended steep slope buffer reduction.
- 13 IMC 18.13.390 "Required Improvements" states that the Planning Director/Manager shall determine that the following improvements are available for each parcel created by the
- A. Adequate water supply when necessary;
- B. Adequate method of sewage disposal;
- C. Provision for appropriate deed, dedications and easements;

Recording of the Short Plat:

- 11. Following expiration of the appeal period of this Notice of Decision, provide the City with a mylar copy of the approved short plat. Upon City signature of the Mylar, the applicant shall record the approved Short Plat with the King County Department of Records and Elections. The Short Plat shall not be deemed formally approved until so filed.
- 12. The land use file number shall be placed on both mylar sheets. The short plat file number is: SP14-00003.
- 13. Three copies of the recorded Short Plat drawings shall be provided to the Development Services Department within ten (10) days of recording with the King County Department of Records and Elections.
- 14. One (1) electronic copy of the final plans shall be provided in a software format acceptable to the Public Works Department.
- 15. All new property corners of the lots shall have a rebar and cap set per current WAC guidelines for land surveys.

Construction Drawing Conditions:

- 16. Show details of water connection at SE Bush, including all fittings. Show blocking.
- 17. Water main west end must terminate with a blow-off. A fire hydrant must also be installed at the west end, prior to the blow-off. Coordinate exact location with Fire Marshall.
- 18. Will the houses require 1-inch water meters? One inch water meters require a 1 1/2" service line (Detail W-09). Call out abandon of existing meter on western BLA Lot.
- 19. Near 8" 90 degree bend at east end, remove text 1" water double meter service or move
- 20. Consider designing as RJ pipe, in order to avoid the need for blocking.
- 21. Minimum of 10' separation between water and sewer. Water main may not be installed under the planter. See Standard G-06, Standard Typical Locating for Underground Utilities.
- 22. Existing west lots on Croston with an existing water meter will need to be upgraded with new meters/setters/MXU assembly, located off of new main.
- 23. Show side sewer connections, and refer/provide appropriate sewer details, per standards.
- 24. Is there existing sewer and water service lines in the easement shown to serve 500 SE
- 25. Grading plans, road sections, utility profiles are required.
- 26. The street standards of Croston Lane are currently not met. The applicant will be required to dedicate for the street improvements. Street frontage improvements will include widening construction of a 5' wide sidewalk and construction of a 5 foot wide planter between the

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- D. Storm drainage improvements and storm sewers when necessary;
- E. Fire hydrants when necessary:
- F. Street and alley paving, and concrete curbs, gutters and sidewalks when necessary:
- G. Street lights when necessary;
- H. Adequate provisions for sidewalks and other planning features that assure safe walking conditions for students who walk to and from school.
- <u>Summary</u>: The proposal meets the short plat requirements, A H, as discussed above.
- 14. The City has determined that appropriate provisions are available or have been made for public health, safety, and general welfare.
- 15. The application was routed to City Departments for review and comment. Those comments are incorporated into this Notice of Decision.
- 16. In accordance to IMC 18.13.400, all short plats shall be filed with the King County Department of Records and Elections and shall not be deemed formally approved until so filed. The filing of the short plat shall be the responsibility of the applicant. Every short plat filed for record must be accompanied by a title report confirming that the title of the lands as described and shown on the short plat is in the name of the applicant (entered as Exhibit 5). A copy of the recorded plat shall be returned to the Issaquah Permit Center within ten (10) days of recording along with an electronic copy in a format acceptable to the Public Works Department.

EXPIRATION OF LAND USE PERMIT

The final decision approving the Short Plat is valid for three years as specified by IMC 18.04.220-D, or as amended by the Land Use Code.

EXHIBIT LIST:

- Short Plat Application and narrative, SP14-00003, received 7-14-2014 Vicinity Map, received 7-14-2014
- Affidavit of Ownership, received 7-14-2014
- Certificate of Transportation Concurrency, issued 7-24-2014 Environmental Checklist, received 7-14-2014
- SEPA Determination (MDNS), issued 3-4-2015 Geotechnical Assessment for Subsurface Infiltration and Slope Stability by Geotech
- Consultants, Inc. dated 4-8-2013, received 7-14-2014 8. Level 1 Drainage Analysis, by Eastside Consultants, Inc., dated 7-14-2014, received 7-14-
- Preliminary Road and Grading Plan, sheet 1 of 4, received 7-14-2014 10. Preliminary Water and Sewer Plan, sheet 2 of 4, received 7-14-2014
- 11. Preliminary Storm Drainage Plan, sheet 3 of 4, received 7-14-2014
- 12. Preliminary Tree Retention Plan, sheet 4 of 4, received 7-14-2014 13. Topography Survey, sheet 1 of 1, received 7-14-2014

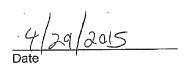
street and the sidewalk that will be landscaped with trees and ground cover.

REASONS FOR DECISION:

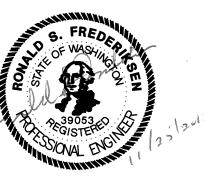
- Issaguah Municipal Code (IMC) 18.04.400 of the Land Use Code authorizes the Development Services Department to review the Short Plat through the Level 2 Review process (administrative review and approval). The Level 2 Review requires public notice to property owners within 300 feet of the site and a decision by the Development Services
- 2. The application was received on July 14, 2014 and a Notice of Complete Application was issued on July 30, 2014.
- 3. The property is zoned Single Family Small Lot (SF-SL). Single family houses are a permitted land use in this zone. The subject property is currently undeveloped. The applicant desires to subdivide the property into 4 lots which will then allow a single family dwelling on each lot, plus 2 tracts: Tract A (stormwater tract) – 8,289 SF and Tract B (drainage/utility easement) - 780 SF. Development standards required of each lot (including setbacks, lot coverage and building height) will be reviewed at the time of Building Permit application submittals are made.
- 4. The minimum lot size in the SF-SL zone is 6,000 square feet according to the District Standards Table, IMC 18.07.360. Each of the lots exceed the minimum lot size
- A SEPA Mitigated Determination of Nonsignificance (MDNS) was issued for the project on March 4, 2015. A 21-day comment/appeal period ended on March 25, 2015 and no comments or appeals were received. SEPA mitigation measures are included as project conditions, Conditions 1-7.
- Review procedures: Review procedures are established under Chapter 18.13.370. The short plat is required to be reviewed under a Level 2 process per IMC 18.04.370, administrative review and with public notice to property owners within 300 feet of the site. The proposal met the public notification requirements (for notice of application and public comment notice) for the Level 2 Short Plat review. A notice of the short plat subdivision including maps of the property was mailed to surrounding property owners within 300 feet of the site on August 29, 2014, and a 2 week comment period was provided ending on September 12, 2014. No correspondence was received from the surrounding property
- 7. A Certificate of Transportation Concurrency was required and was provided for the short plat subdivision by certificate CON14-00005. The certificate was issued on July 24, 2014. It was determined that the short plat would generate 5.05 PM peak hour trips for the four single family lots created. The proposal is consistent with the requirements of the Transportation Concurrency Management Code (IMC Chapter 18.15). No further review for transportation was required for the short plat proposal.
- 8. The Subdivision Code, stating with Chapter 18.13.020-E (Scope), establishes the Short Plat regulations that apply to land being divided into four or fewer lots and which have not been divided as part of a Short Plat within a period of five years previously. The subject

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Peter Rosen, Environmental Planner Development Services Department



CITY OF ISSAQUAH · ENGINEERING REVIEW



JOB NO. 13084 **DATE 8/15** SCALE 1"=20' DESIGNED RSF DRAWN RSF CHECKED R.KITZ APPROVED RSF

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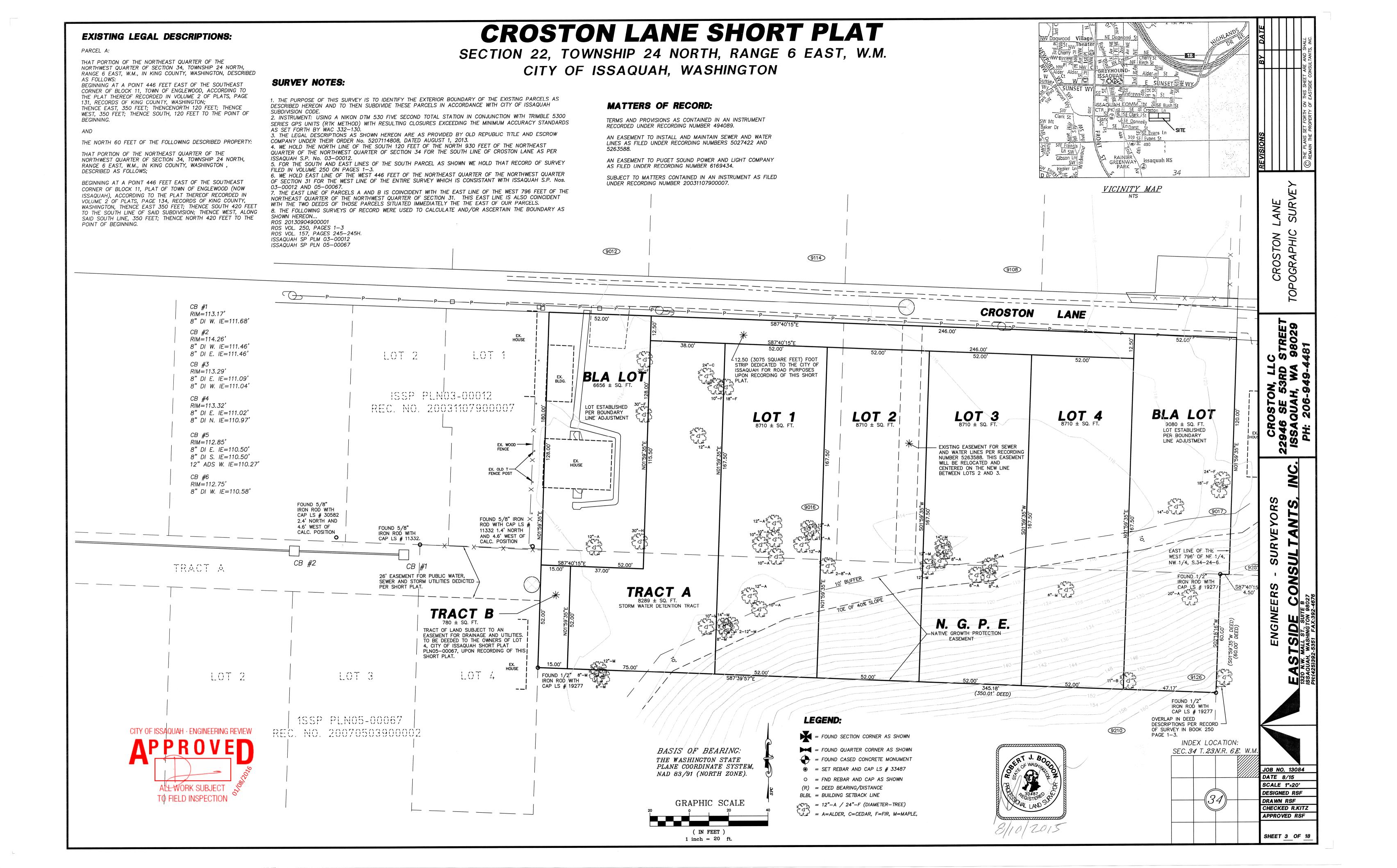
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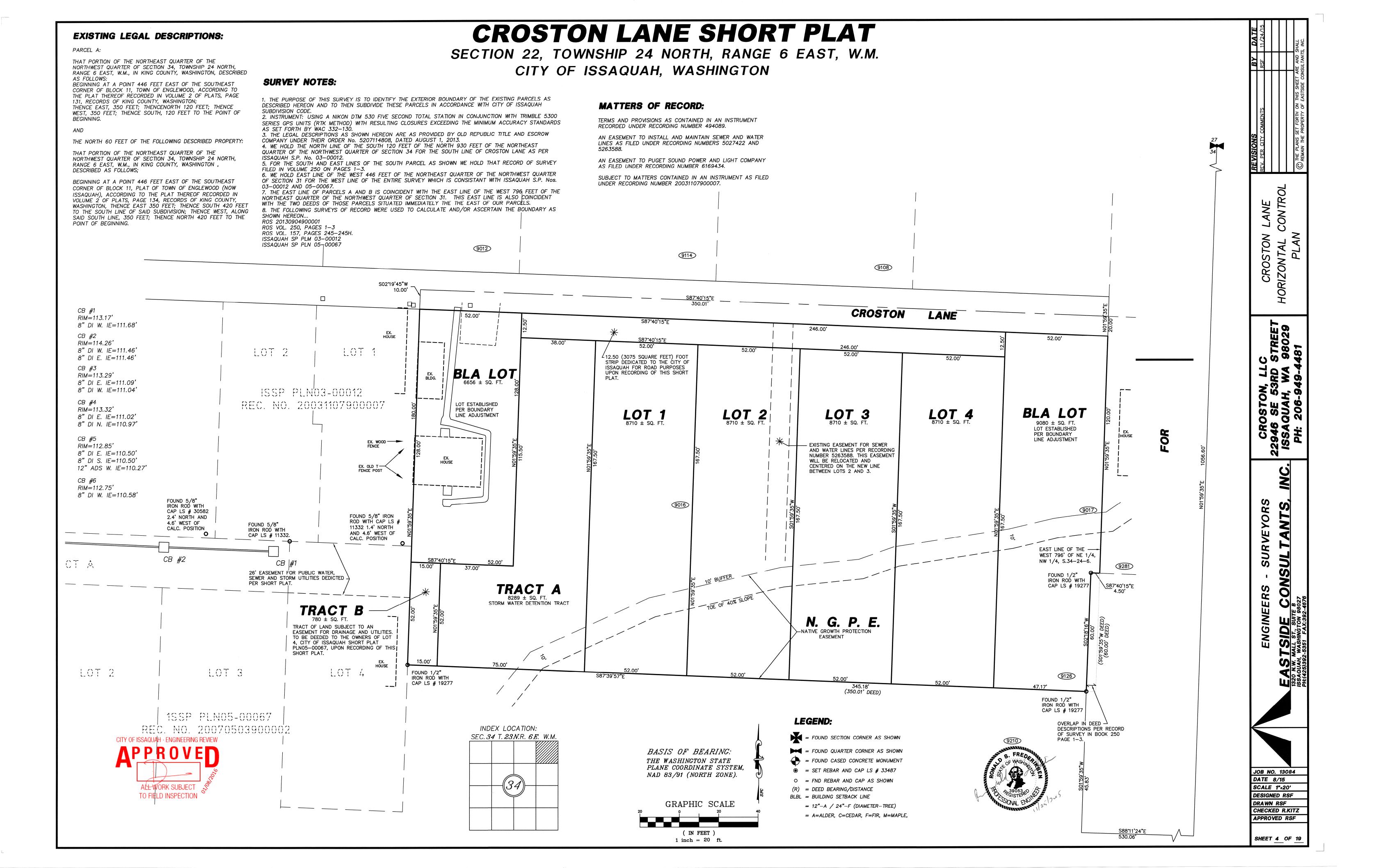
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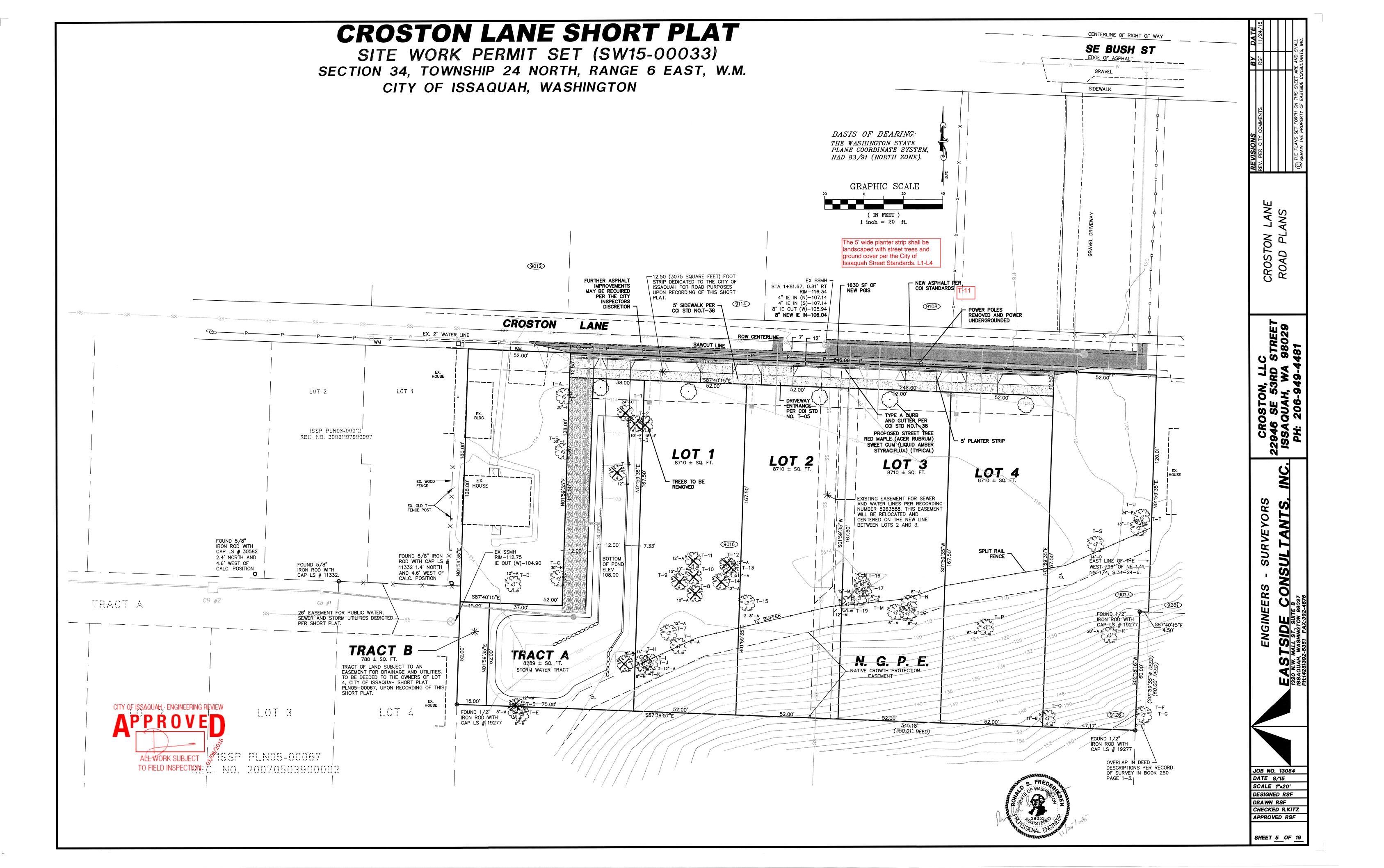
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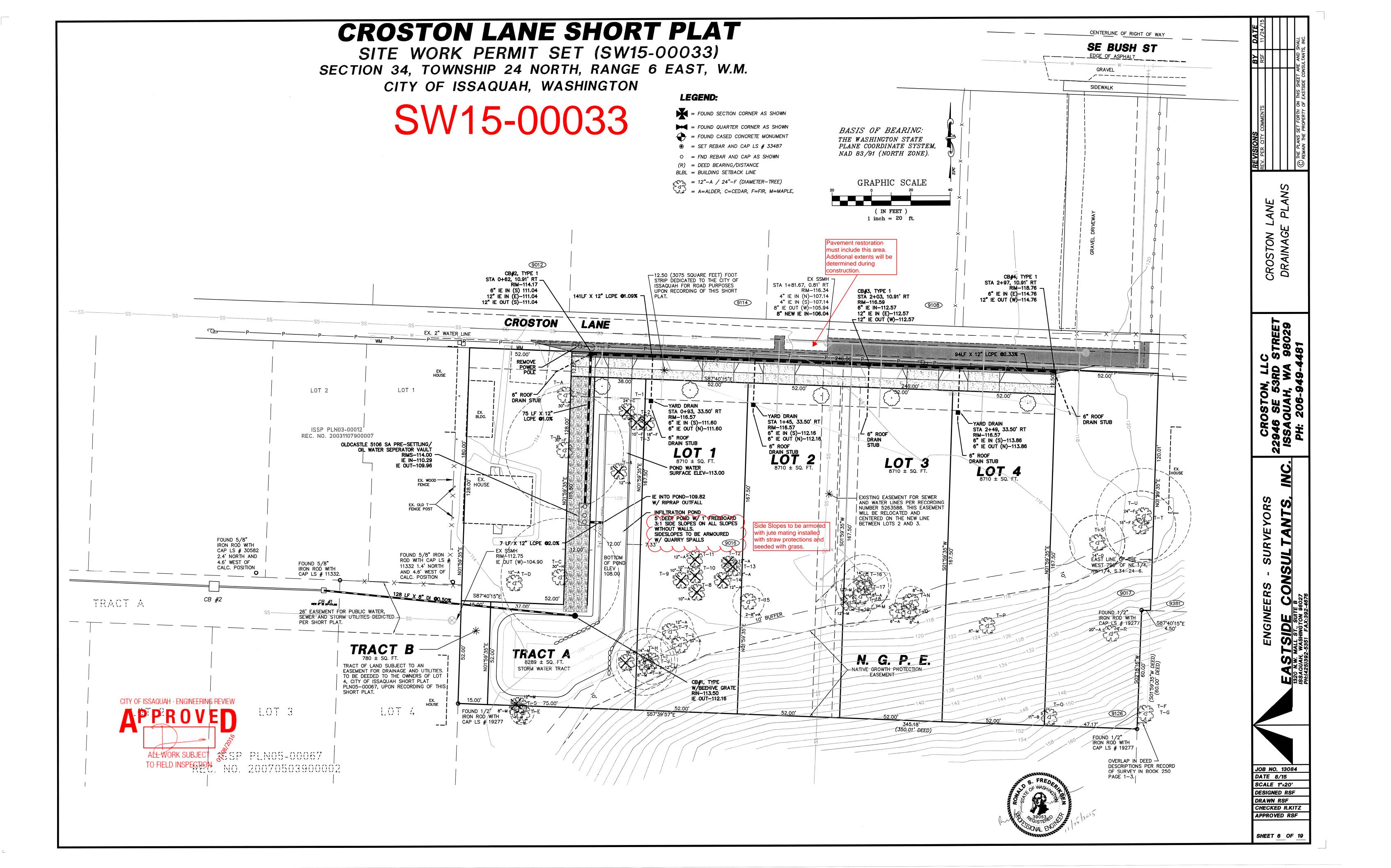
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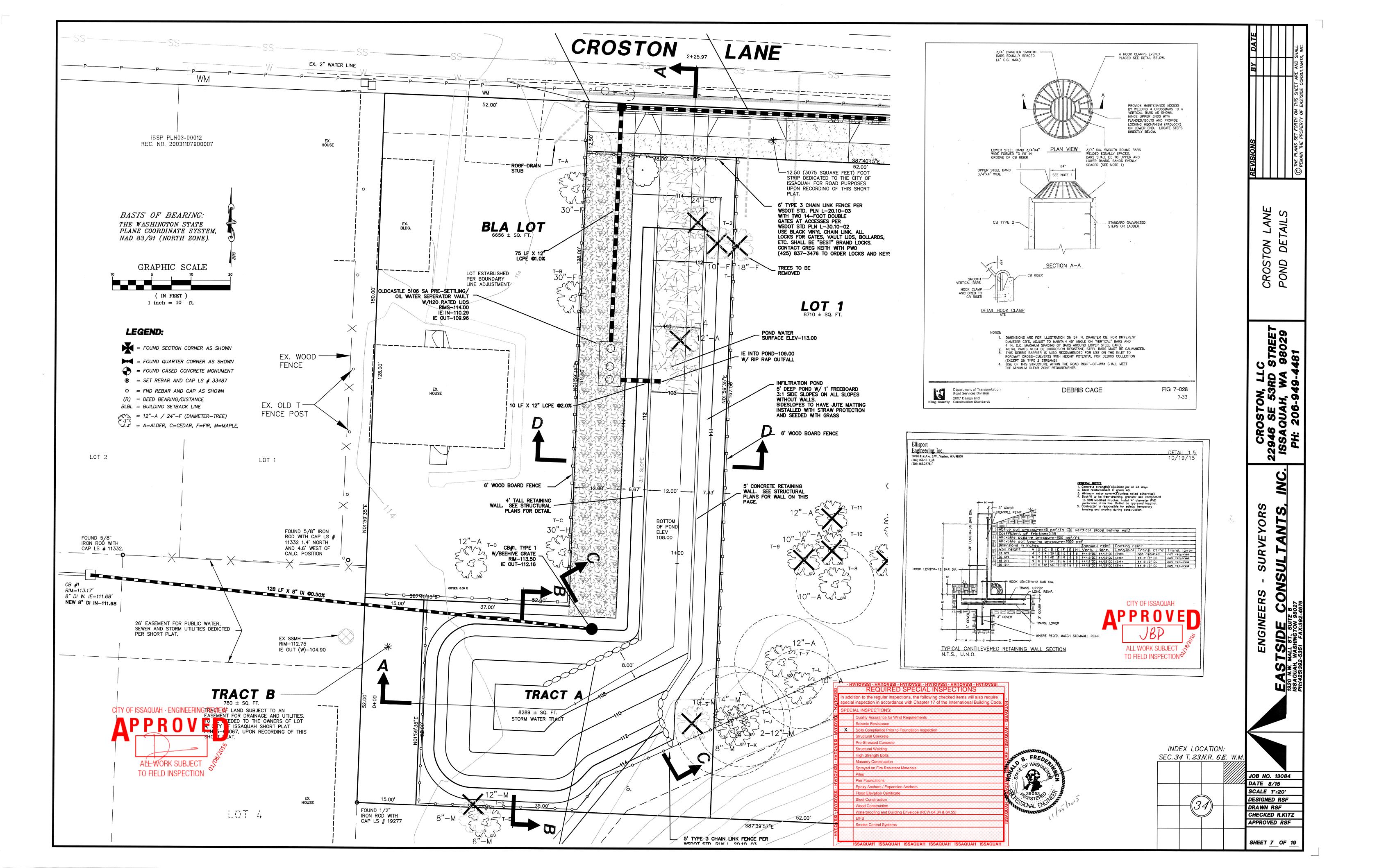
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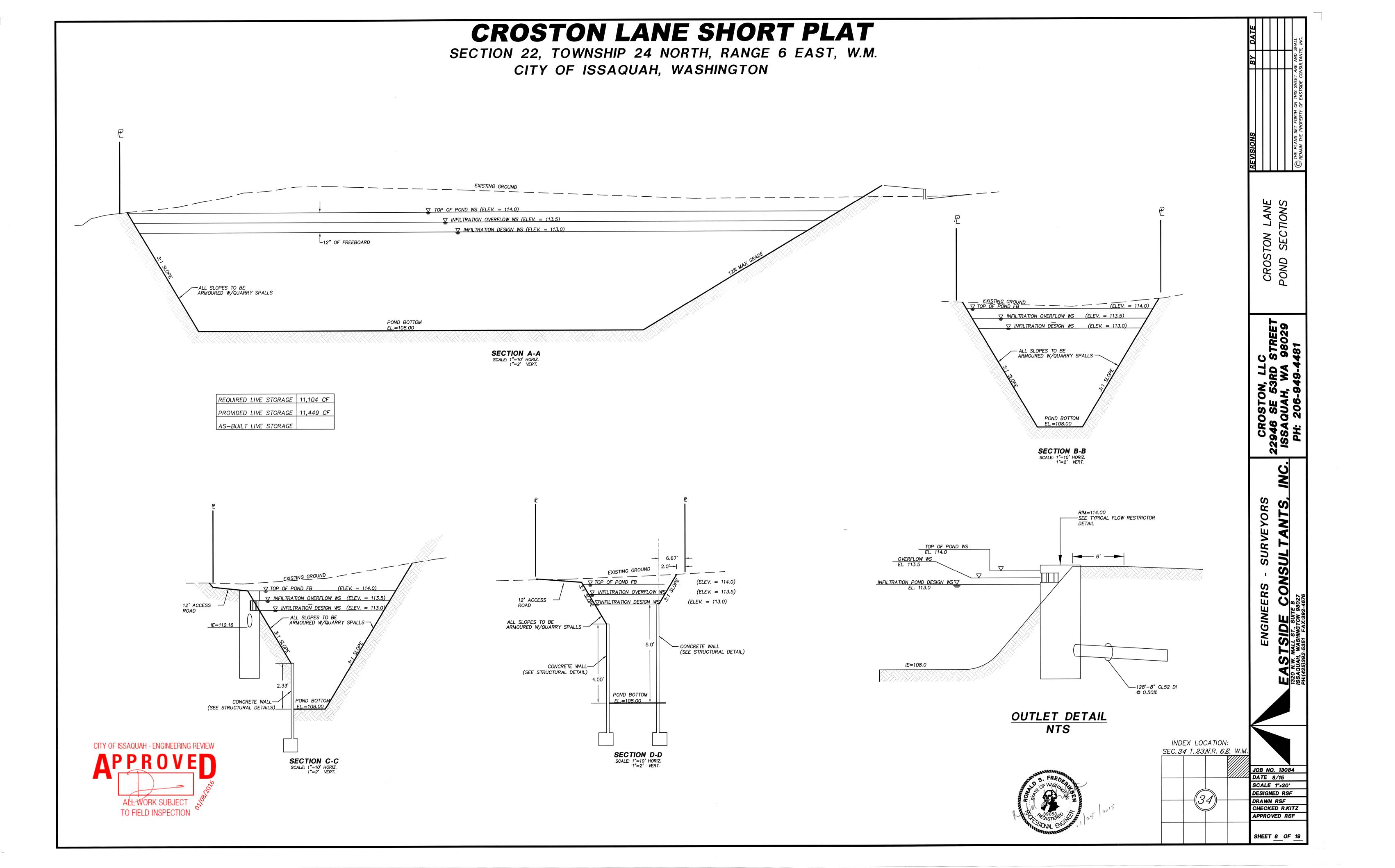


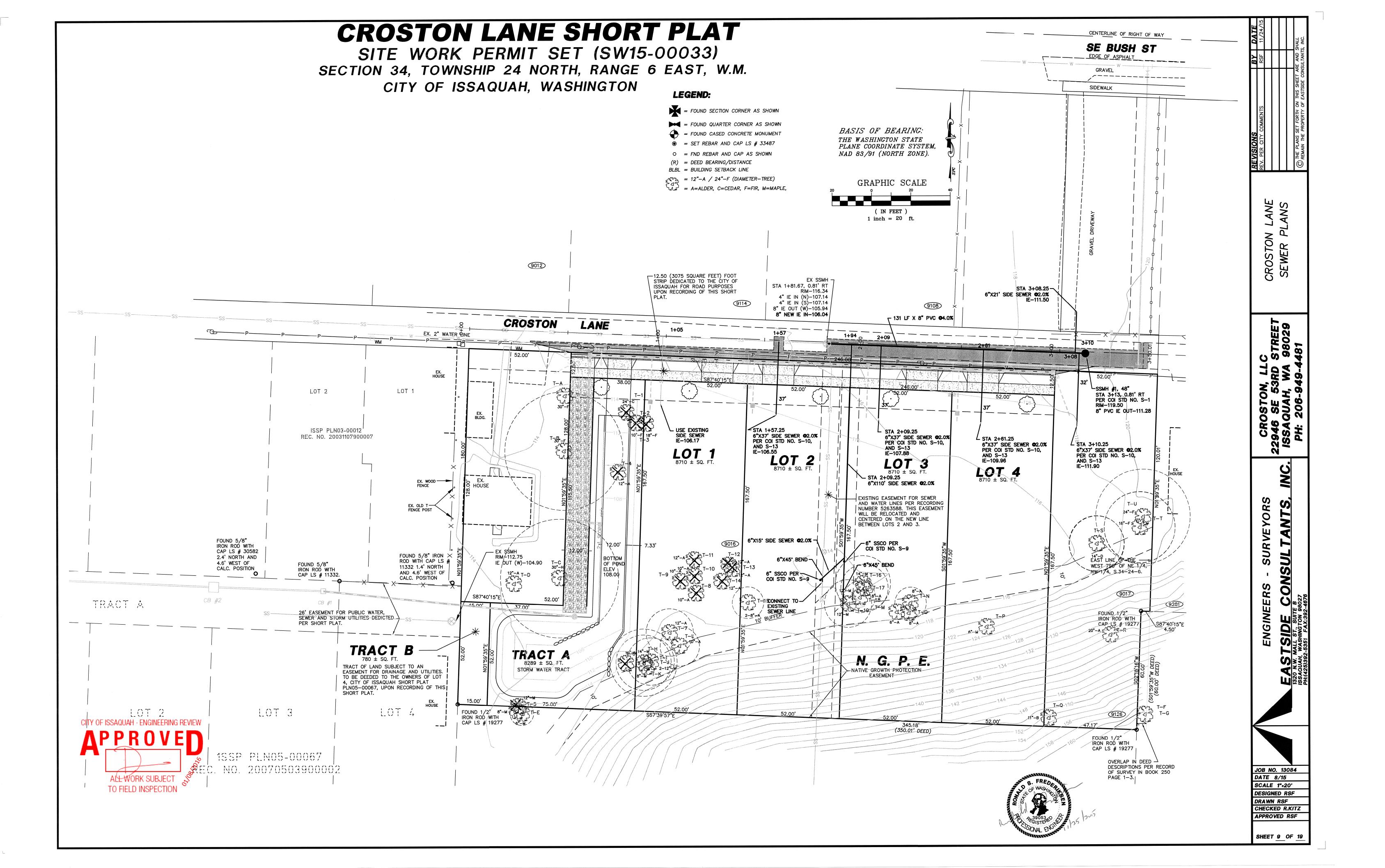


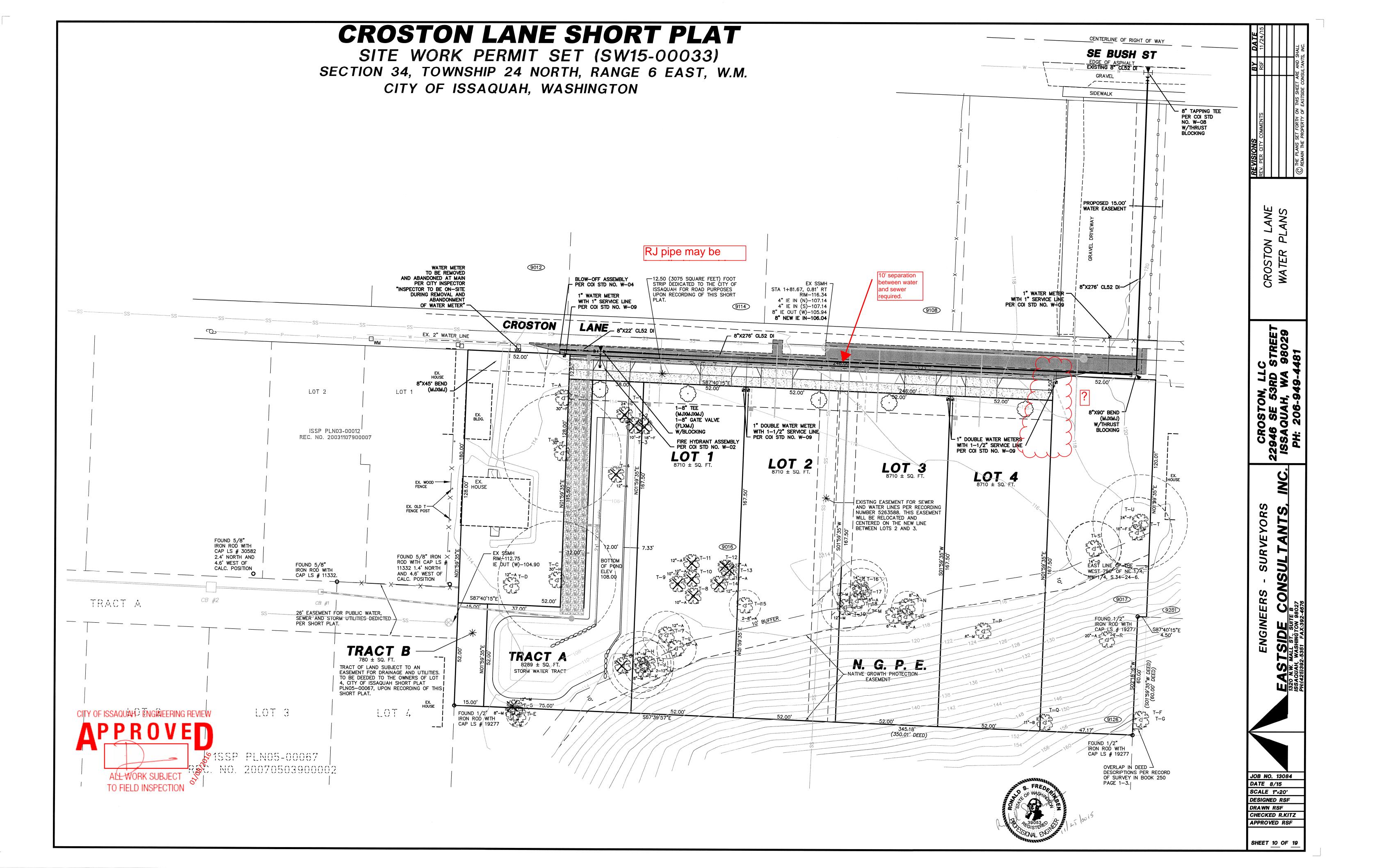






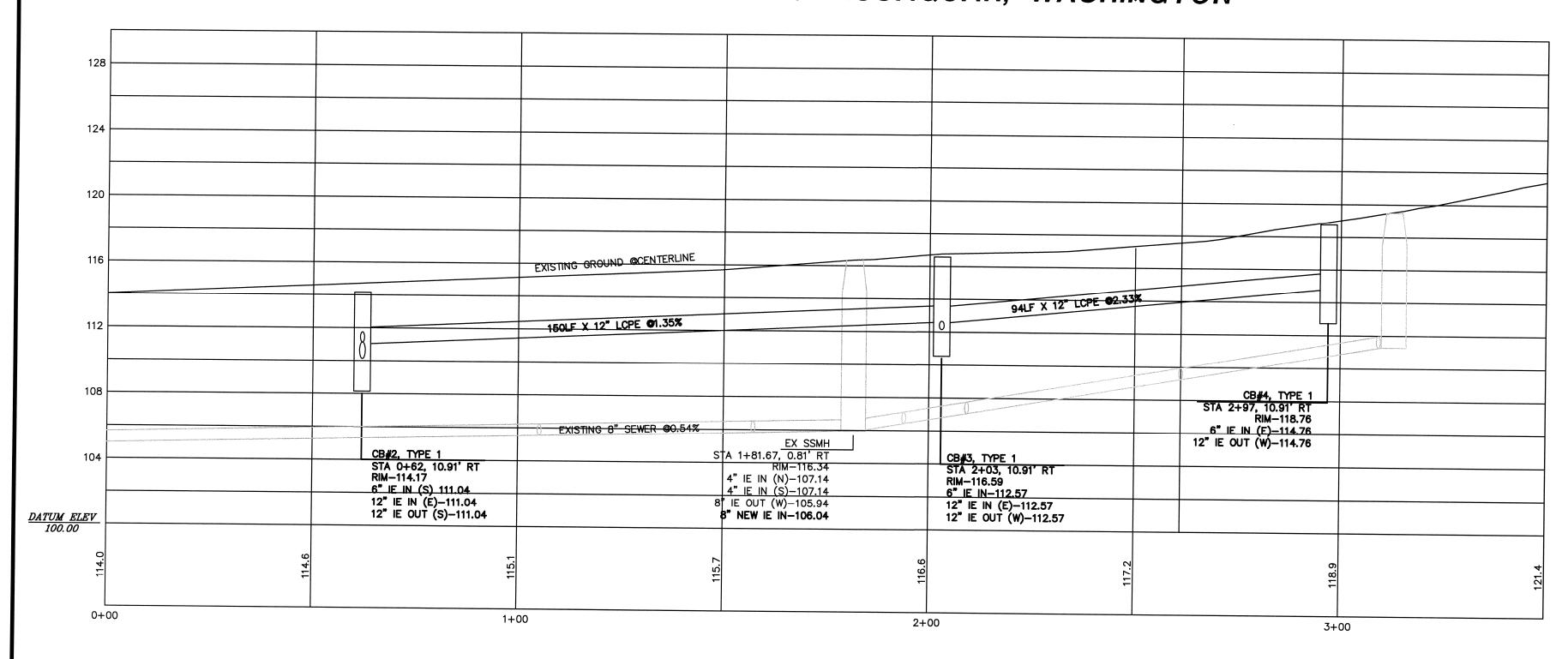


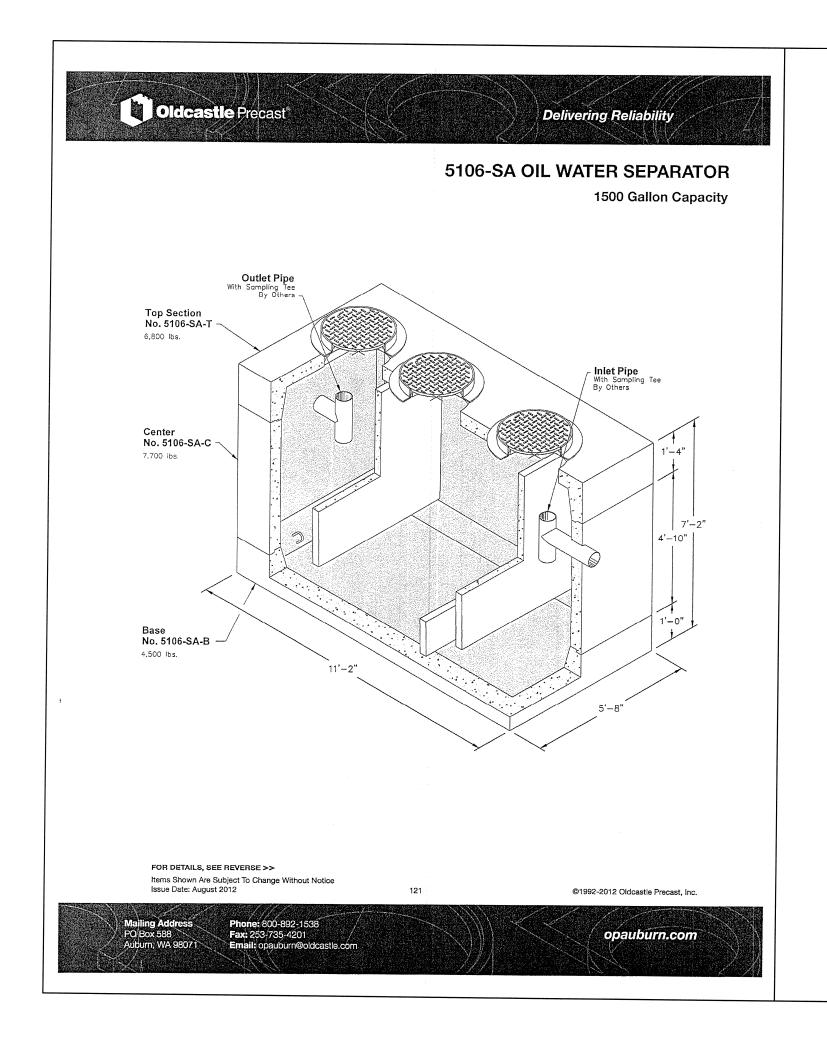


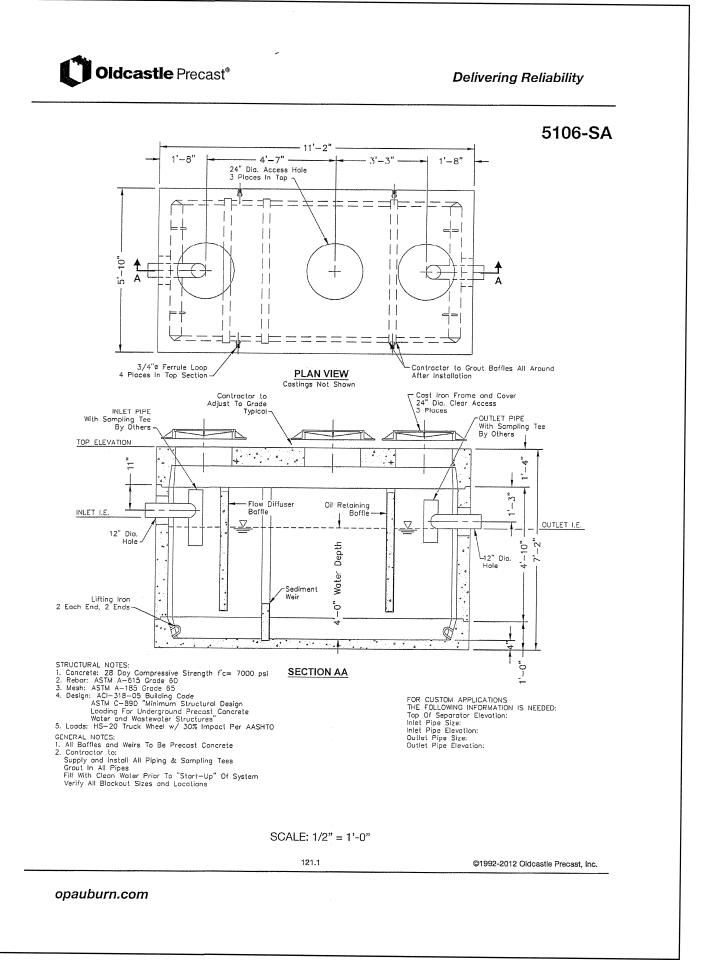


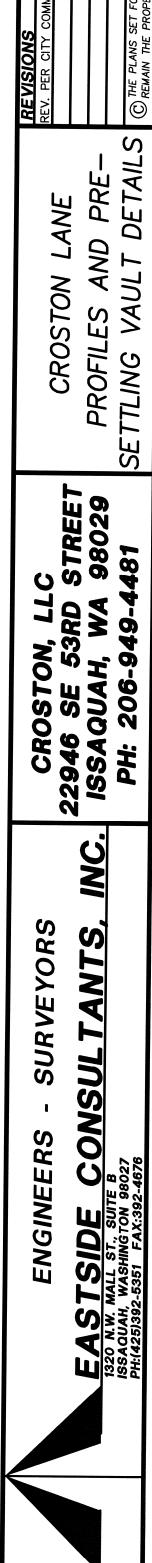
CROSTON LANE SHORT PLAT

SITE WORK PERMIT SET (SW15-00033)
SECTION 34, TOWNSHIP 24 NORTH, RANGE 6 EAST, W.M.
CITY OF ISSAQUAH, WASHINGTON









JOB NO. 13084 DATE 8/15

SCALE 1"=20'

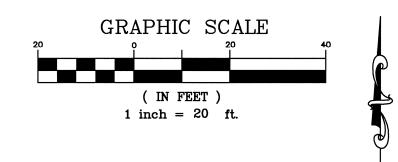
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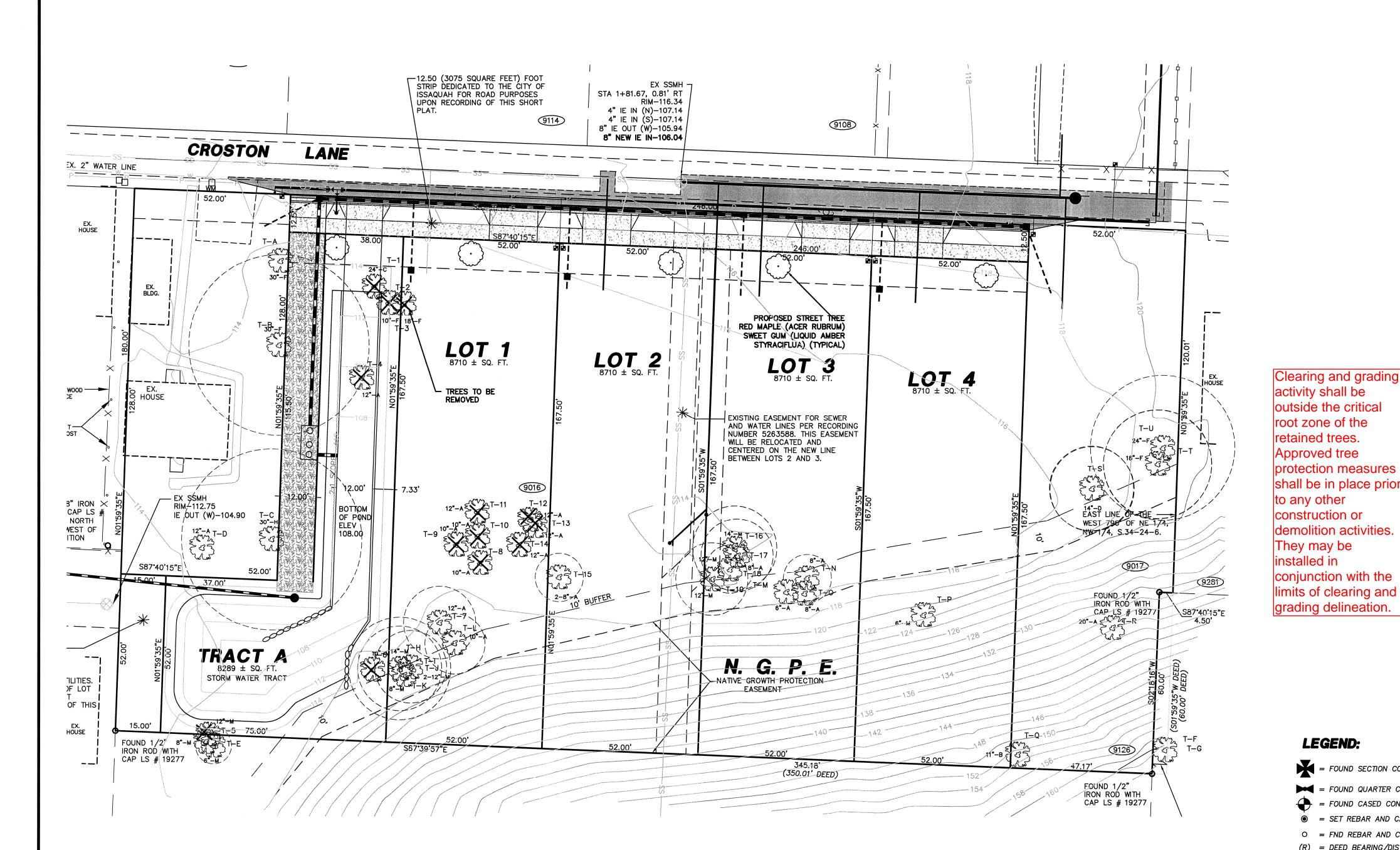
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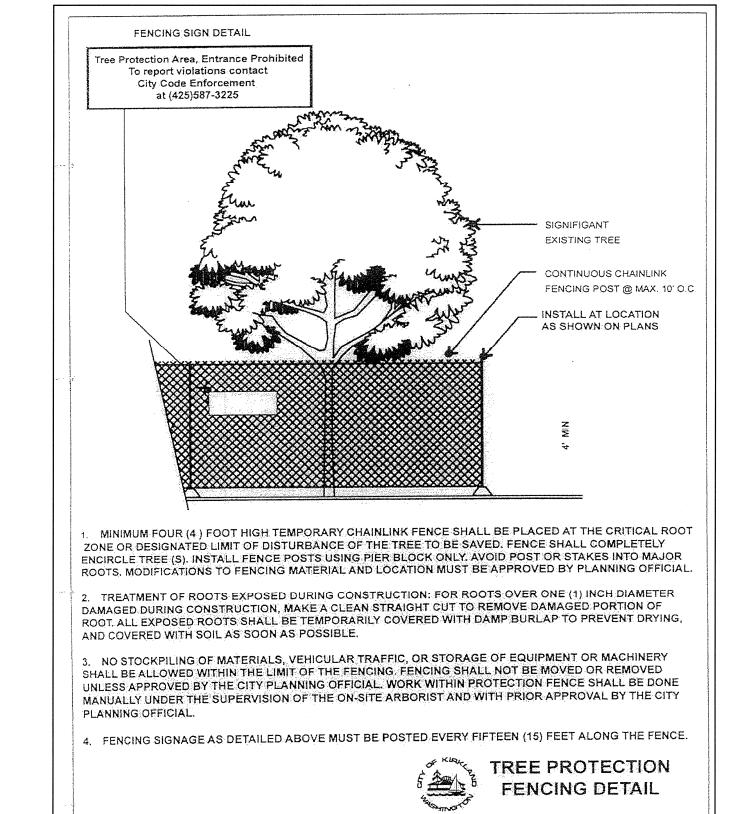


CROSTON LANE SHORT PLAT

SITE WORK PERMIT SET (SW15-00033) SECTION 34, TOWNSHIP 24 NORTH, RANGE 6 EAST, W.M. CITY OF ISSAQUAH, WASHINGTON



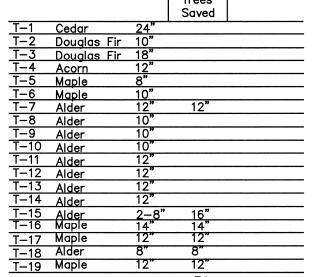




TREE-ID SPECIES DIA. TREES OFFSITE OR NEAR PROPERTY LINE

			Trees	
			Saved	
T-A	Douglas Fir	30"		
T–B	Douglas Fir	30"		
T-C	Hemlock	30"		
T–D	Acorn	11"		
T-E	Maple	8"		
T-F	Maple	12"		
T-G	Maple	<u> 12" </u>		
<u>T–H </u>	Maple	14"		
<u>T-I</u>	Maple	12 "		
T-J	Maple	12"		
T-K	Maple	8"		·····
T-L	Alder	10"		
T-M	Alder	6"		
T-N	Alder	8″		
T-0	Alder	8"		
T-P	Maple	6 "		
T-Q	Birch	11"		
T-R	Alder	20"		
T–S	Decidous	14"		
T-T	Douglas Fir	18″		
T–U	Douglas Fir	24"		

TREE-ID SPECIES DIA. TREES COUNTED WITHIN SITE INTERIOR



PERCENT SAVED EQUALS = 74"/234" = 31.62% RETAINED



LEGEND:

= FOUND SECTION CORNER AS SHOWN

= FOUND QUARTER CORNER AS SHOWN

= FOUND CASED CONCRETE MONUMENT

SET REBAR AND CAP LS # 33487

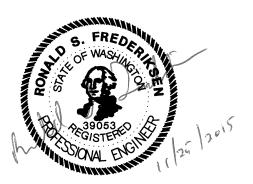
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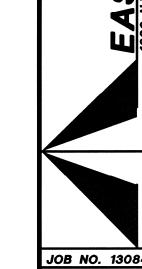
(R) = DEED BEARING/DISTANCE BLBL = BUILDING SETBACK LINE

 $\mathcal{E}^{\text{NN}} = 12^{\text{N}} - A / 24^{\text{N}} - F \text{ (DIAMETER-TREE)}$

= A=ALDER, C=CEDAR, F=FIR, M=MAPLE,

BASIS OF BEARING: THE WASHINGTON STATE PLANE COORDINATE SYSTEM, NAD 83/91 (NORTH ZONE).





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JOB NO. 13084 DATE 8/15 SCALE 1"=20' DESIGNED RSF DRAWN RSF CHECKED R.KITZ APPROVED RSF

SHEET 12 OF 19

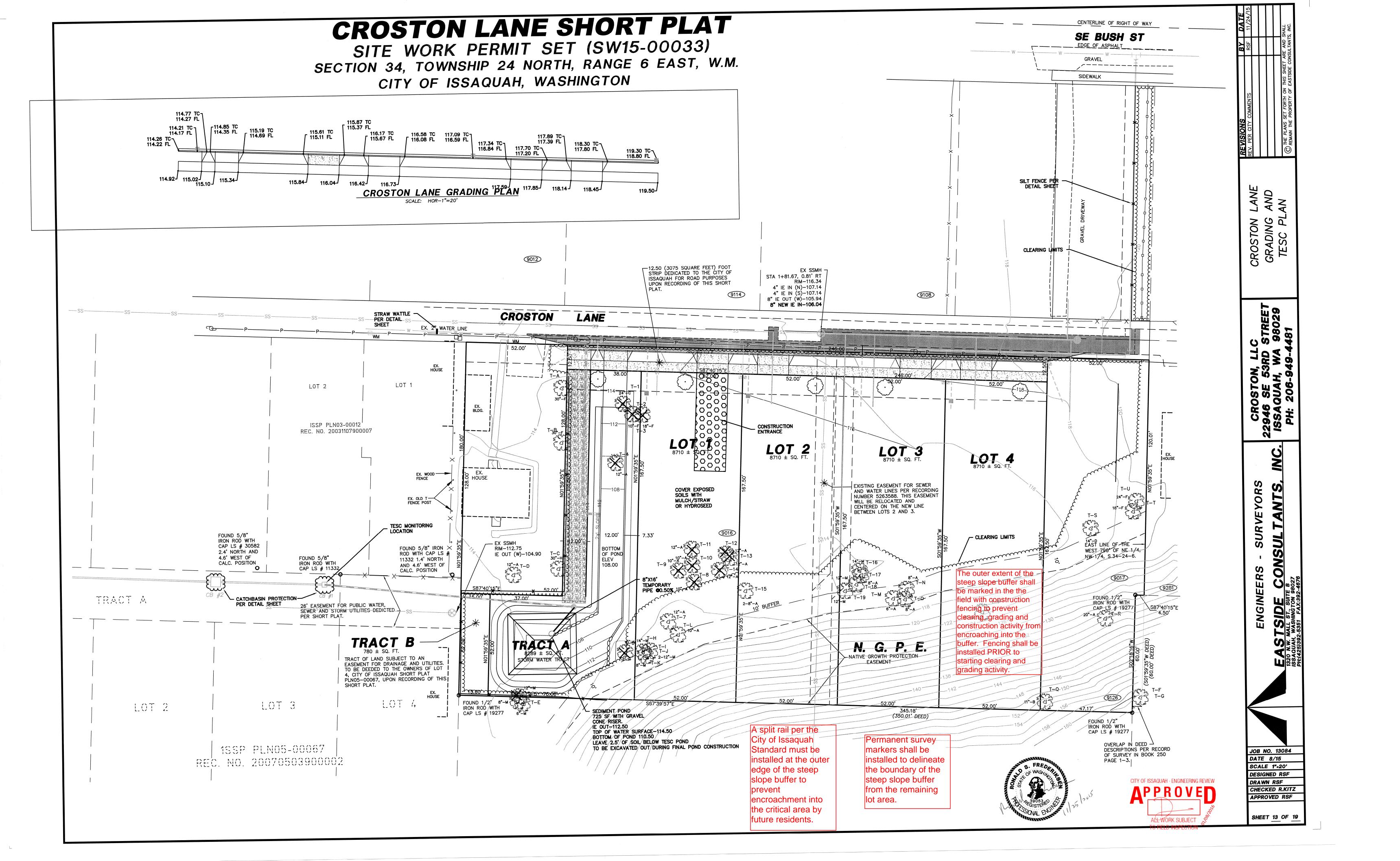


Table 4.1.2 Temporary Erosion Control Seed Mix				
	% Weight	% Purity	% Germination	
Chewings or annual blue grass	40	98	90	
Festuca rubra var. commutata or				
Poa anna				
Perennial rye -	50	98	90	
Lolium perenne				
Redtop or colonial bentgrass	5	92	85	
Agrostis alba or Agrostis tenuis				
White dutch clover	5	98	90	
Trifolium repens				

• Table 4.1.3 lists a recommended mix for landscaping seed.

Table 4 Landscaping			
	% Weight	% Purity	% Germination
Perennial rye blend	70	98	90
Lolium perenne			
Chewings and red fescue blend	30	98	90
Festuca rubra var. commutata			
or Festuca rubra			

• Table 4.1.4 lists a turf seed mix for dry situations where there is no need for watering. This mix requires very little maintenance.

Table 4.1.4 Low-Growing Turf Seed Mix				
	%	Weight	% Purity	% Germination
Dwarf tall fescue (several varieties)		45	98	90
Festuca arundinacea var.				
Dwarf perennial rye (Barclay)		30	98	90
Lolium perenne var. barclay				
Red fescue		20	98	90
Festuca rubra				
Colonial bentgrass		5	98	90
Agrostis tenuis				

• Table 4.1.5 lists a mix for bioswales and other intermittently wet areas.

Table 4.1 Bioswale See			
	% Weight	% Purity	% Germination
Tall or meadow fescue	75-80	98	90
Festuca arundinacea or Festuca			•
elatior			
Seaside/Creeping bentgrass	10-15	92	85
Agrostis palustris			
Redtop bentgrass	5-10	90	80
Agrostis alba or Agrostis gigantea			

* Modified Briargreen, Inc. Hydroseeding Guide Wetlands Seed Mix

• <u>Table 4.1.6</u> lists a low-growing, relatively non-invasive seed mix appropriate for very wet areas that are not regulated wetlands. Apply this mixture at a rate of 60 pounds per acre. Consult Hydraulic Permit Authority (HPA) for seed mixes if applicable.

Table 4.1.6 Wet Area Seed Mix*			
· · · · · · · · · · · · · · · · · · ·	% Weight	% Purity	% Germination
Tall or meadow fescue	60-70	98	90 ·
Festuca arundinacea or			
Festuca elatior			
Seaside/Creeping bentgrass	10-15	98	85
Agrostis palustris			
Meadow foxtail	10-15	90	80
Alepocurus pratensis			
Alsike clover	1-6	98	90
Trifolium hybridum			
Redtop bentgrass	1-6	92	85
Agrostis alba			

* Modified Briargreen, Inc. Hydroseeding Guide Wetlands Seed Mix

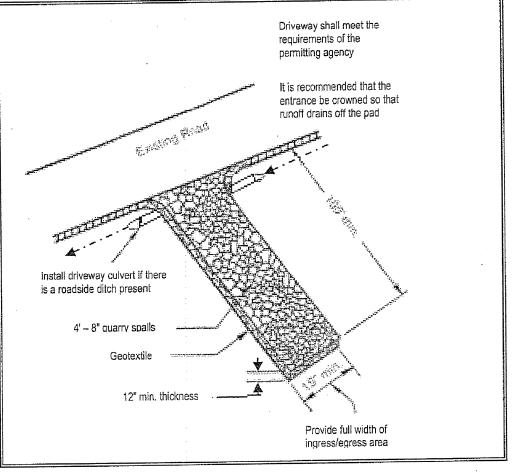
• Table 4.1.7 lists a recommended meadow seed mix for infrequently maintained areas or non-maintained areas where colonization by native plants is desirable. Likely applications include rural road and utility right-of-way. Seeding should take place in September or very early October in order to obtain adequate establishment prior to the winter months. Consider the appropriateness of clover, a fairly invasive species, in the mix. Amending the soil can reduce the need for clover.

Table 4.1.7 Meadow Seed Mix			
:	% Weight	% Purity	% Germination
Redtop or Oregon bentgrass Agrostis alba or Agrostis oregonensis	20	92	85
Red fescue Festuca rubra	70	98	90
White dutch clover Trifolium repens	10	98	90.

CROSTON LANE SHORT PLAT

SECTION 22, TOWNSHIP 24 NORTH, RANGE 6 EAST, W.M.

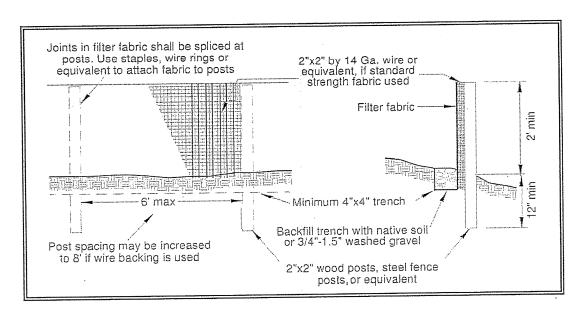
CITY OF ISSAQUAH, WASHINGTON



CONSTRUCTION ENTRANCE DETAIL

Table 4.1.8 Mulch Standards and Guidelines				
Mulch Material	Quality Standards	Application Rates	Remarks	
Straw	Air-dried; free from undesirable seed and coarse material.	2"-3" thick; 5 bales per 1,000 sf or 2-3 tons per acre	Cost-effective protection when applied with adequate thickness. Hand-application generally requires greater thickness than blown straw. The thickness of straw may be reduced by half when used in conjunction with seeding. In windy areas straw must be held in place by crimping, using a tackifier, or covering with netting. Blown straw always has to be held in place with a tackifier as even light winds will blow it away. Straw, however, has several deficiencies that should be considered when selecting mulch materials. It often introduces and/or encourages the propagation of weed species and it has no significant long-term benefits. It should also not be used within the ordinary high-water elevation of surface waters (due to flotation).	
Hydromulch	No growth inhibiting factors.	Approx. 25-30 lbs per 1,000 sf or 1,500 - 2,000 lbs per acre	Shall be applied with hydromulcher. Shall not be used without seed and tackifier unless the application rate is at least doubled. Fibers longer than about 3/4-1 inch clog hydromulch equipment. Fibers should be kept to less than 3/4 inch.	
Composted Mulch and Compost	No visible water or dust during handling. Must be produced in accordance with WAC 173-350, Solid Waste Handling Standards.	2" thick min.; approx. 100 tons per acre (approx. 800 lbs per yard)	More effective control can be obtained by increasing thickness to 3". Excellent mulch for protecting final grades until landscaping because it can be directly seeded or tilled into soil as an amendment. Composted mulch has a coarser size gradation than compost. It is more stable and practical to use in wet areas and during rainy weather conditions. Do not use composted mulch near wetlands or near phosphorous impaired water bodies.	
Chipped Site Vegetation	Average size shall be several inches. Gradations from fines to 6 inches in length for texture, variation, and interlocking properties.	2" thick min.;	This is a cost-effective way to dispose of debris from clearing and grubbing, and it eliminates the problems associated with burning. Generally, it should not be used on slopes above approx. 10% because of its tendency to be transported by runoff. It is not recommended within 200 feet of surface waters. If seeding is expected shortly after mulch, the decomposition of the chipped vegetation may tie up nutrients important to grass establishment.	
Wood-based Mulch or Wood Straw	No visible water or dust during handling. Must be purchased from a supplier with a Solid Waste Handling Permit or one exempt from solid waste regulations.	2" thick min.; approx. 100 tons per acre (approx. 800 lbs. per cubic yard)	This material is often called "hog or hogged fuel." The use of mulch ultimately improves the organic matter in the soil. Special caution is advised regarding the source and composition of wood-based mulches. Its preparation typically does not provide any weed seed control, so evidence of residual vegetation in its composition or known inclusion of weed plants or seeds should be monitored and prevented (or minimized).	
Wood Strand Mulch	A blend of loose, long, thin wood pieces derived from native conifer or deciduous trees with high length-to-width ratio.	2" thick min.	Cost-effective protection when applied with adequate thickness. A minimum of 95-percent of the wood strand shall have lengths between 2 and 10-inches, with a width and thickness between 1/16 and %-inches. The mulch shall not contain resin, tannin, or other compounds in quantities that would be detrimental to plant life. Sawdust or wood shavings shall not be used as mulch. (WSDOT specification (9-14.4(4))	

MULCHING



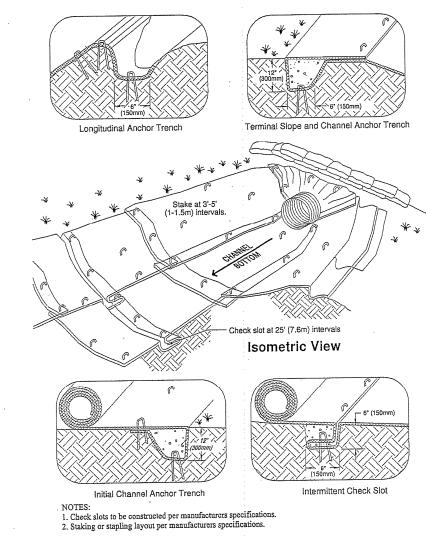


Figure 4.1.3 – Channel Installation

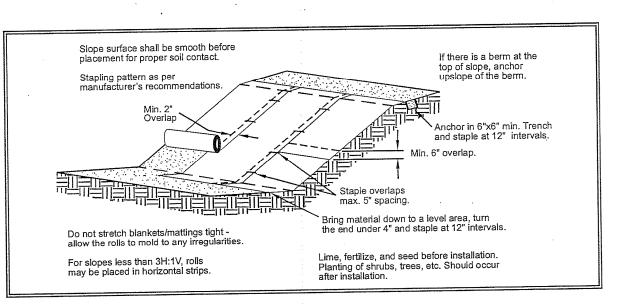
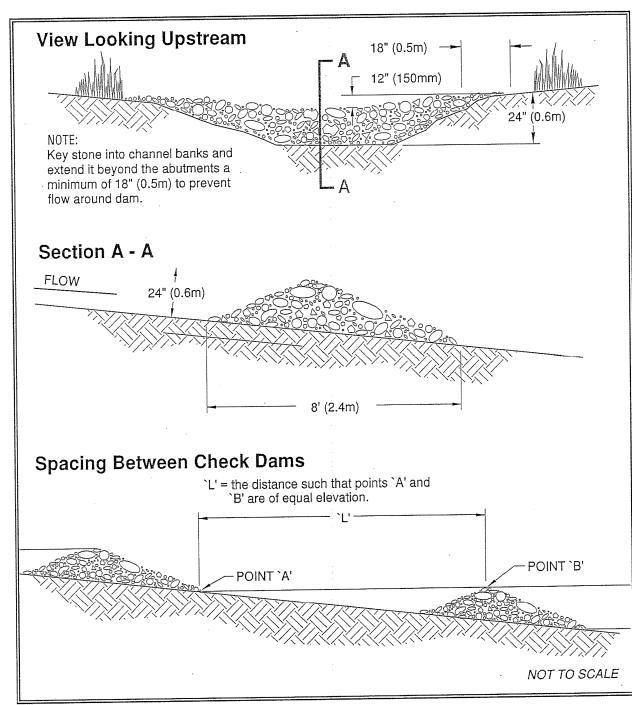
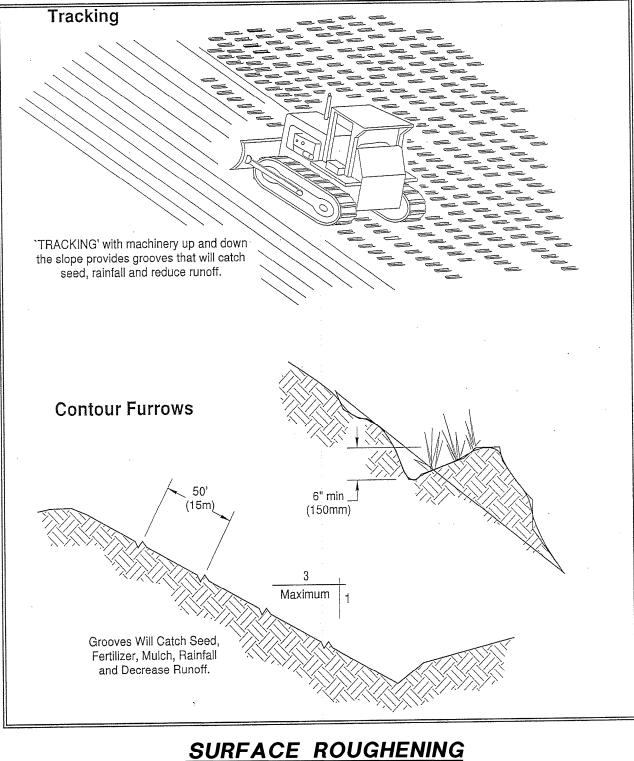


Figure 4.1.4 – Slope Installation NETS AND BLANKETS



GRAVEL CHECK DAMS

SITE WORK PERMIT SET SW15-00033



	Material
Clear l	Plastic, 6 mil
Drainp	oipe, 6 or 8 inch diameter
Sandb	ags, filled
Straw	Bales for mulching,
Quarry	y Spalls
Washe	ed Gravel
Geote	xtile Fabric
Catch	Basin Inserts
Steel '	T" Posts
Silt fe	nce material
Straw	Wattles

MATERIALS ON HAND

Table 4.2.2 Storm Drain Inlet Protection					
Type of Inlet Protection	Emergency Overflow	Applicable for Paved/ Earthen Surfaces	Conditions of Use		
Drop Inlet Protection		:			
Excavated drop inlet protection	Yes, temporary flooding will occur	Earthen	Applicable for heavy flows. Easy to maintain. Large area Requirement: 30' X 30'/acre		
Block and gravel drop inlet protection	Yes	Paved or Earthen	Applicable for heavy concentrated flows. Will not pond.		
Gravel and wire drop inlet protection	No		Applicable for heavy concentrated flows. Will pond. Can withstand traffic.		
Catch basin filters	Yes	Paved or Earthen	Frequent maintenance required.		
Curb Inlet Protection		(4)。在40年(4)年(4)年(4)			
Curb inlet protection with a wooden weir	Small capacity overflow	Paved	Used for sturdy, more compact installation.		
Block and gravel curb inlet protection	Yes	Paved	Sturdy, but limited filtration.		
Culvert Inlet Protection	on				
Culvert inlet sediment			18 month expected life.		

STORM DRAIN PROTECTION DETAIL

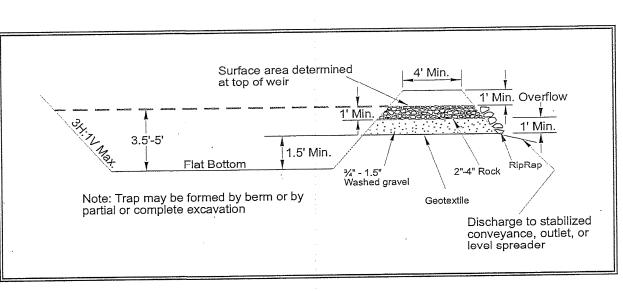
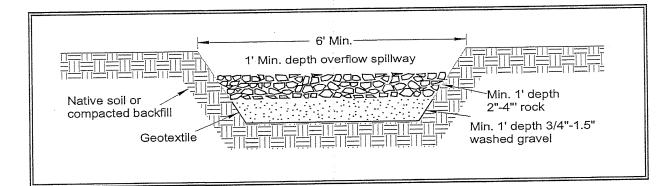
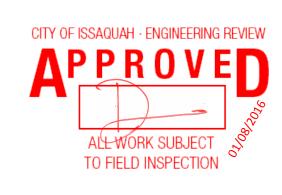


Figure 4.2.16 – Cross Section of Sediment Trap



SEDIMENT TRAP





SHEET <u>14</u> OF <u>19</u>

JOB NO. 13084 DATE 8/15

SCALE 1"=20'

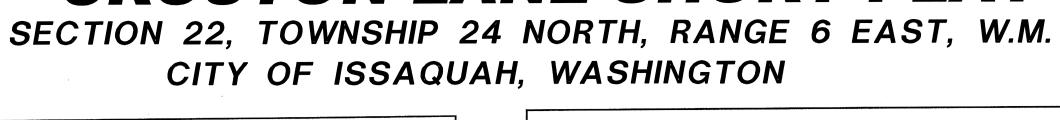
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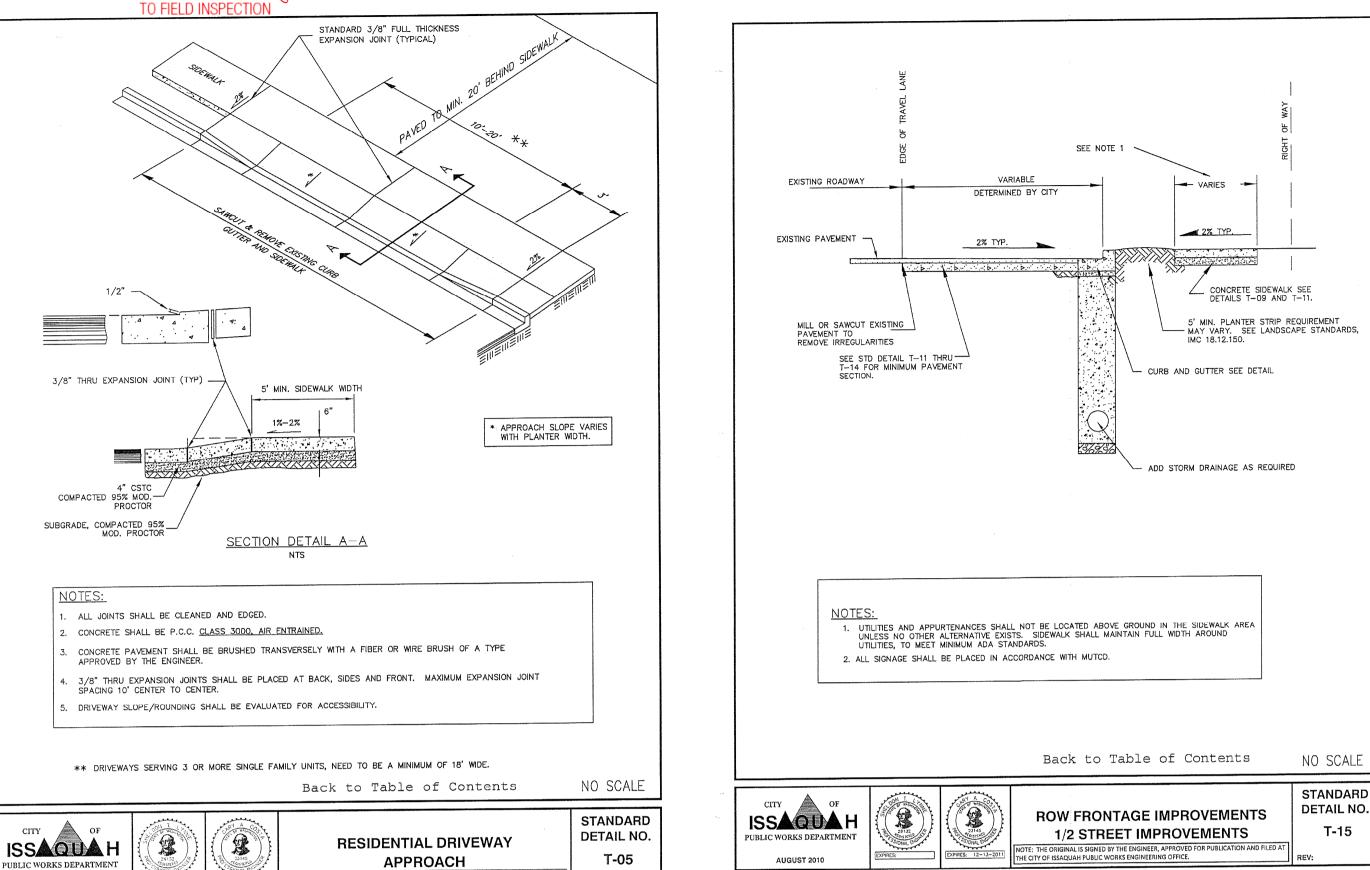
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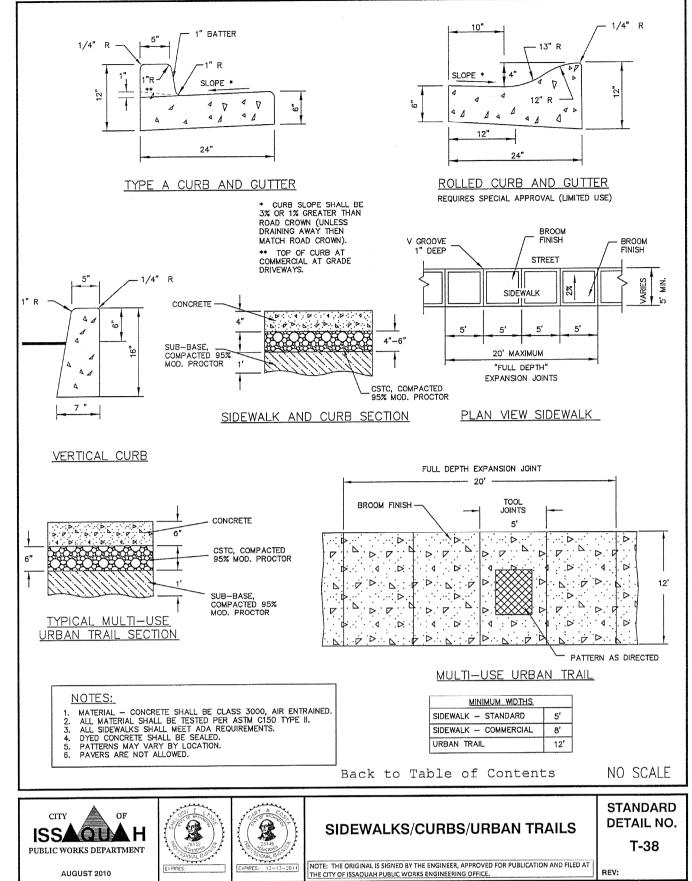
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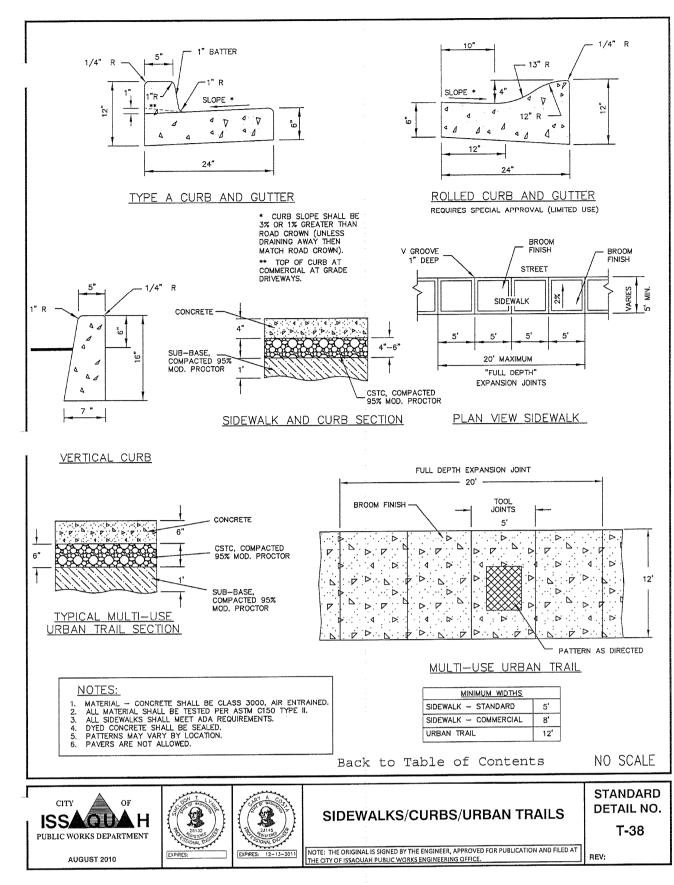


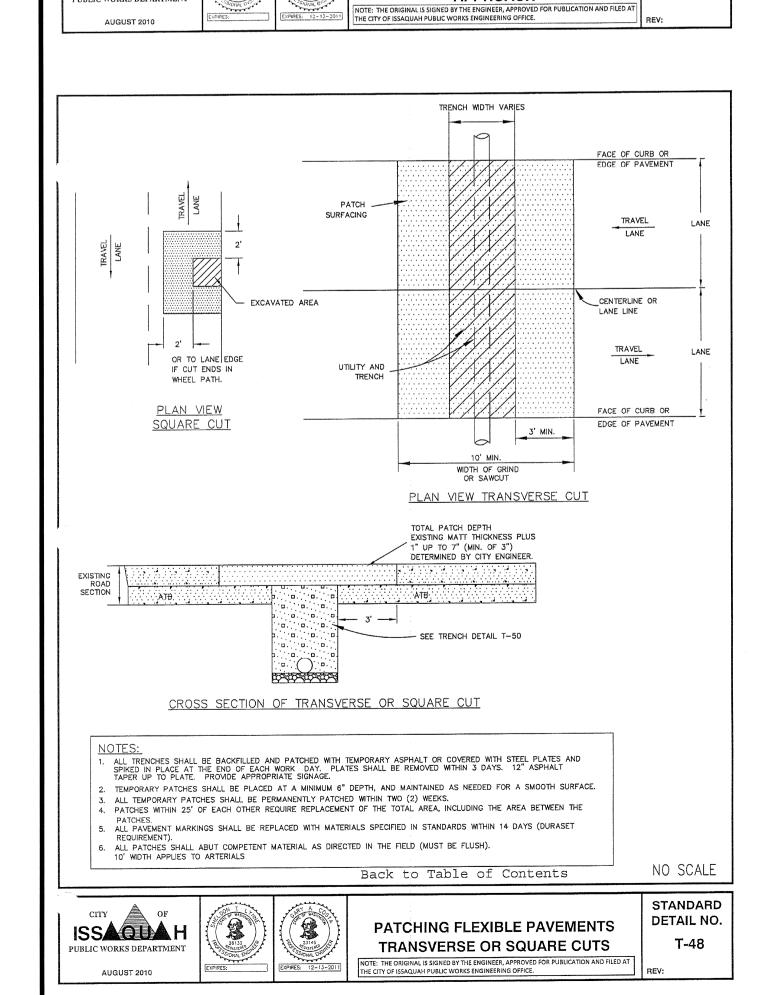
TEMPORARY AND PERMANENT SEEDING DETAIL





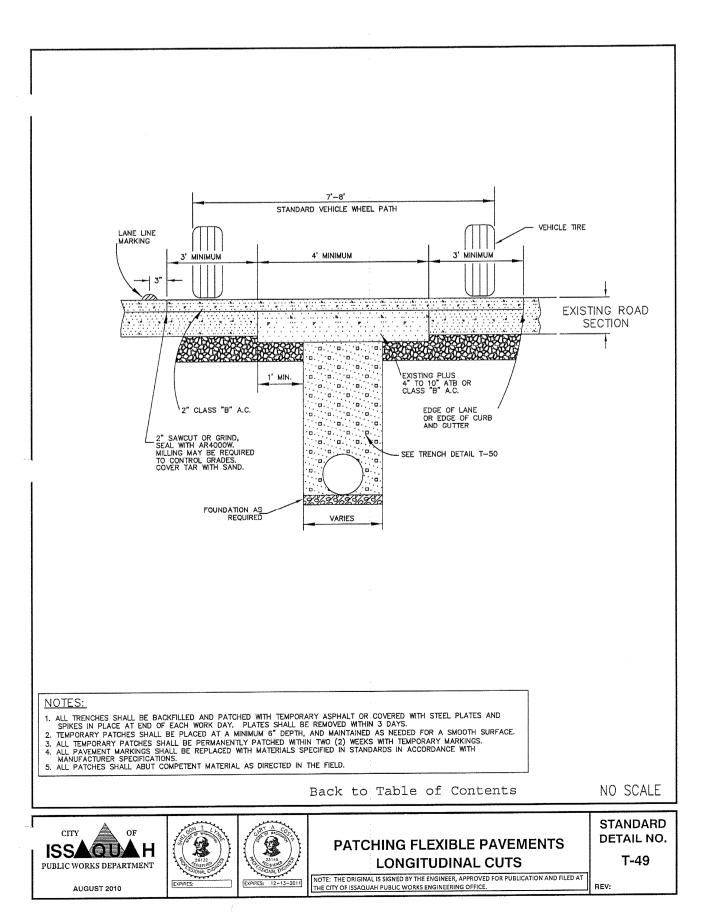


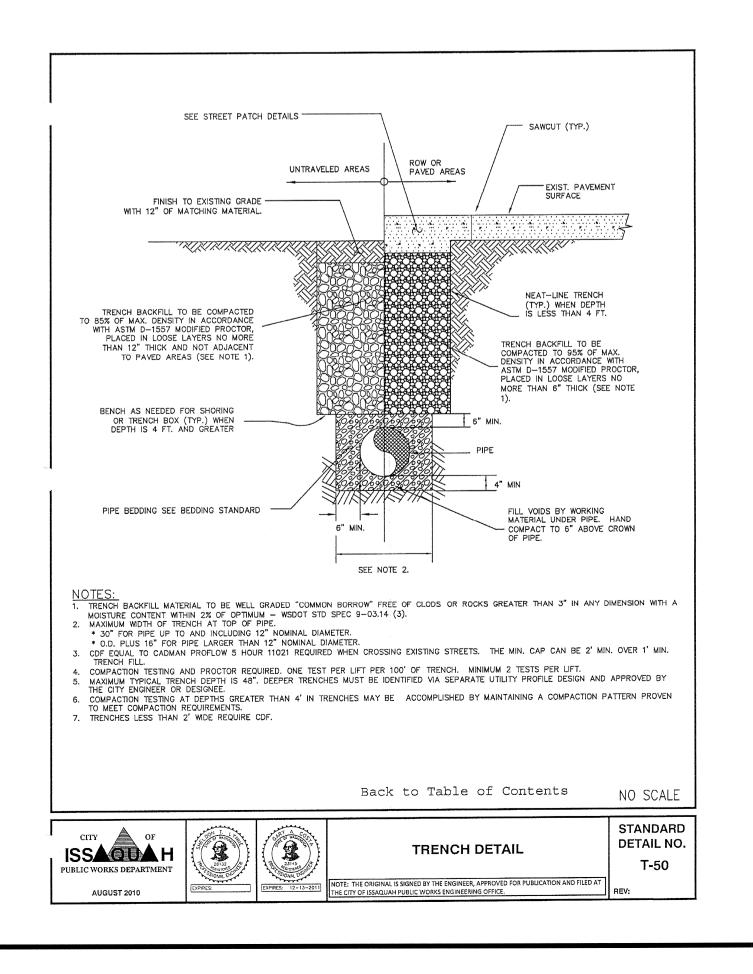


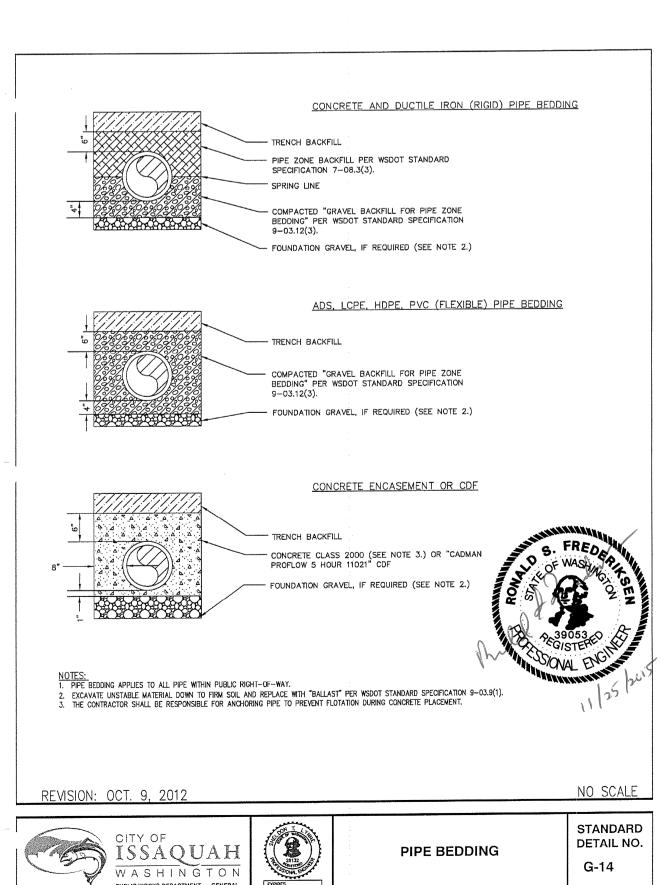


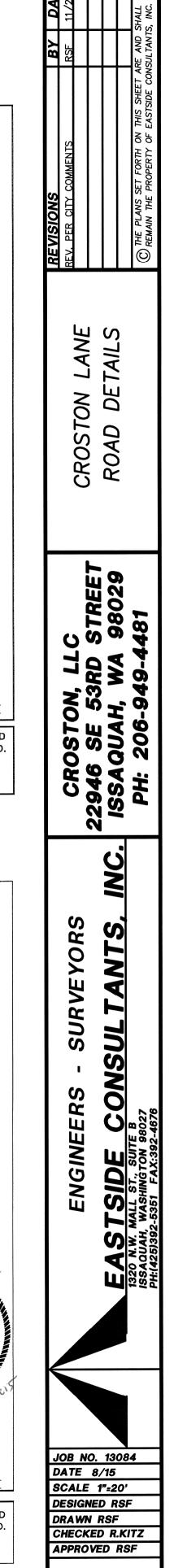
CITY OF ISSAQUAH · ENGINEERING REVIEW

ALL-WORK SUBJECT









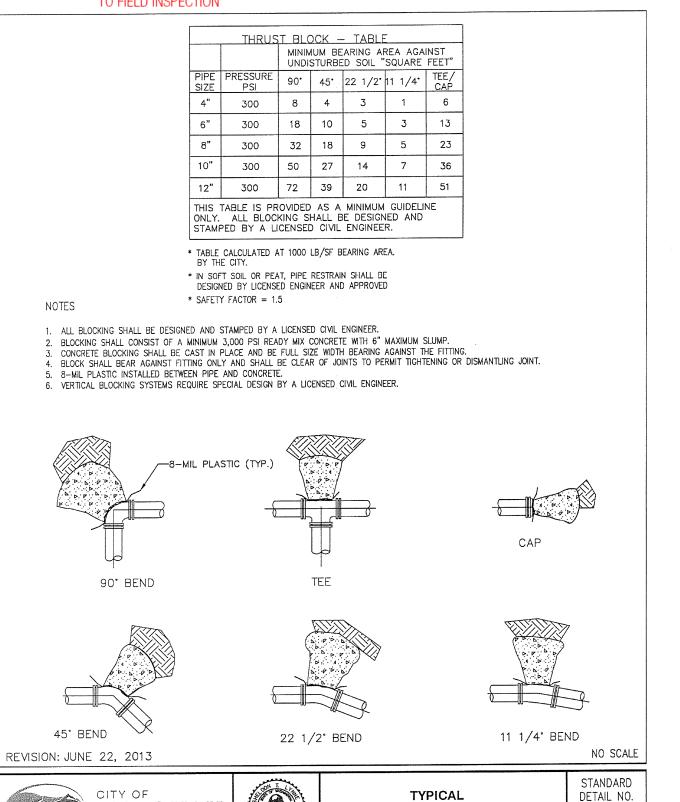
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SECTION 22, TOWNSHIP 24 NORTH, RANGE 6 EAST, W.M.

CITY OF ISSAQUAH, WASHINGTON

CITY OF ISSAQUAH · ENGINEERING REVIEW TO FIELD INSPECTION

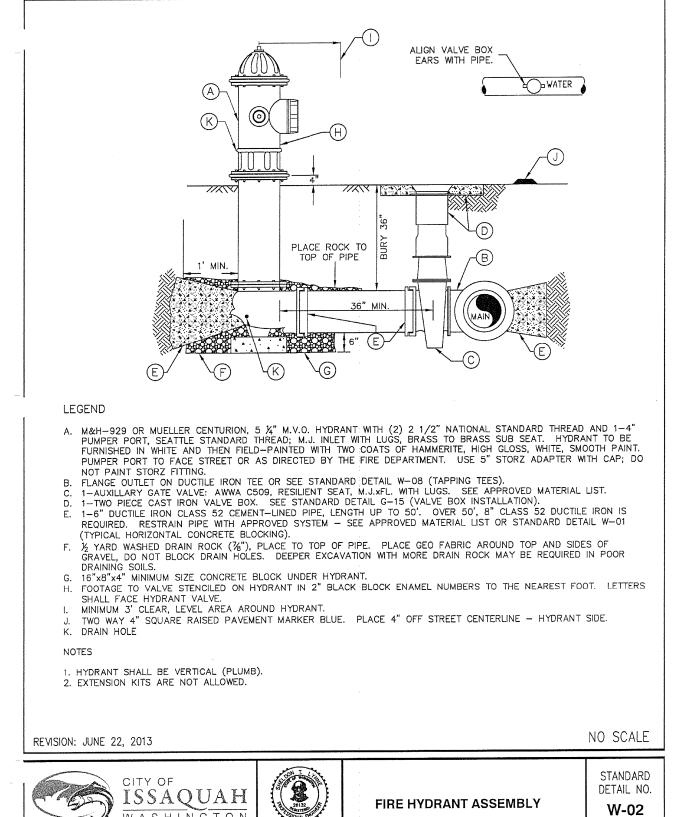
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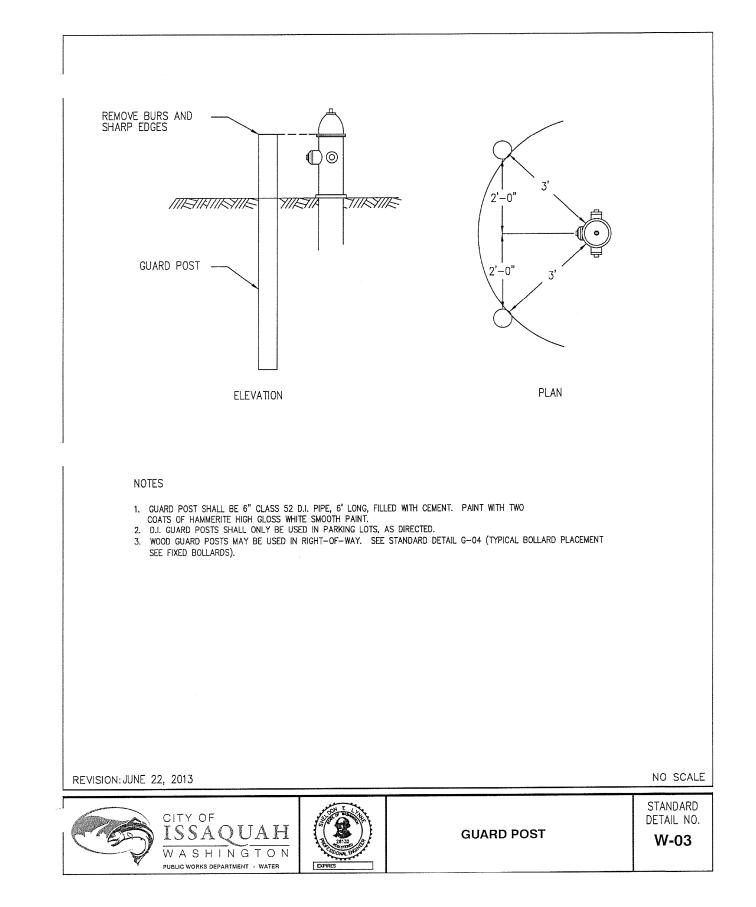


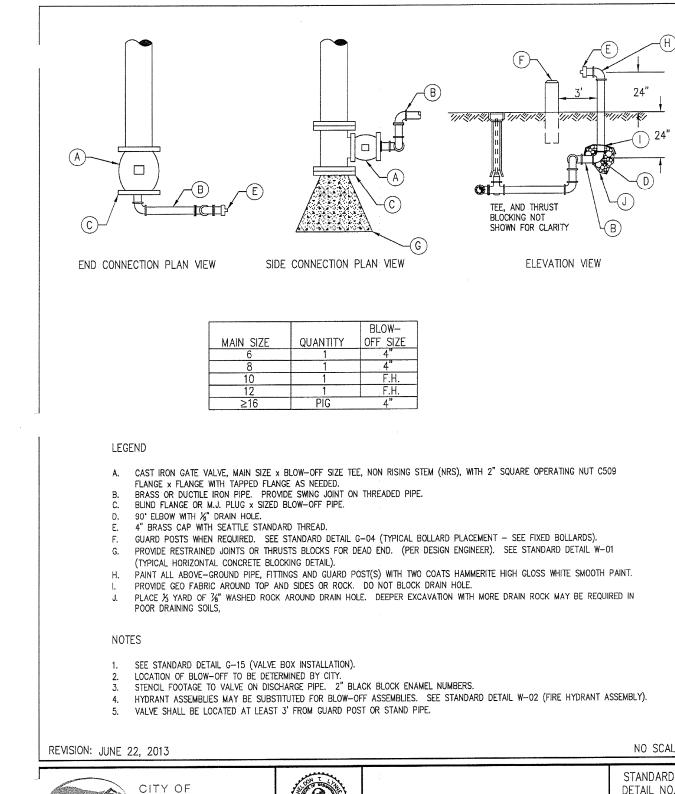
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BLOCKING

W-01

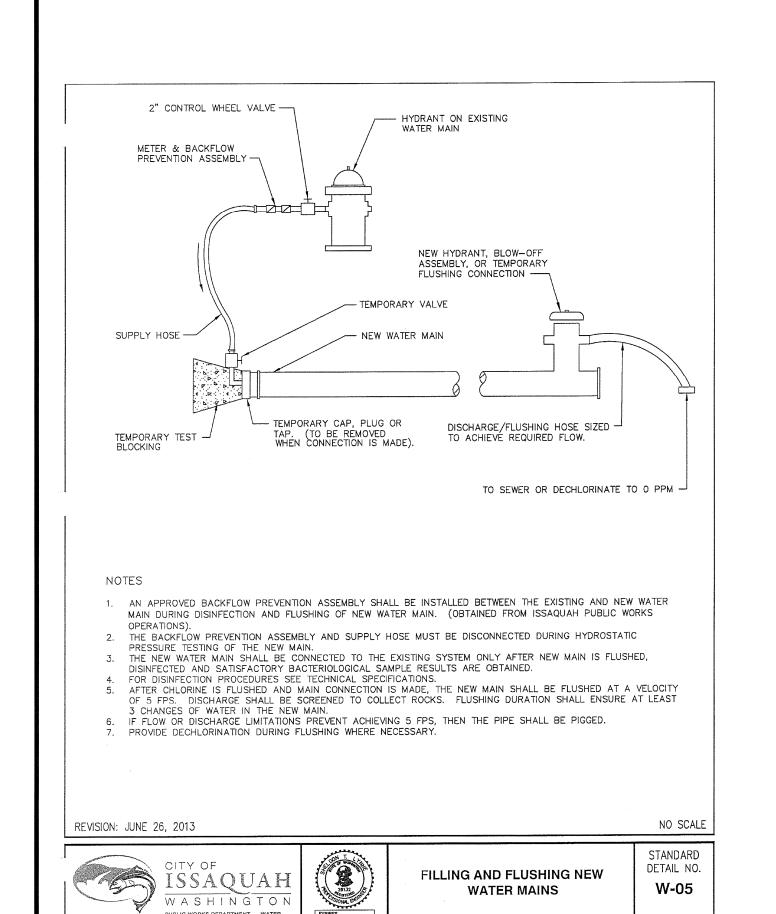


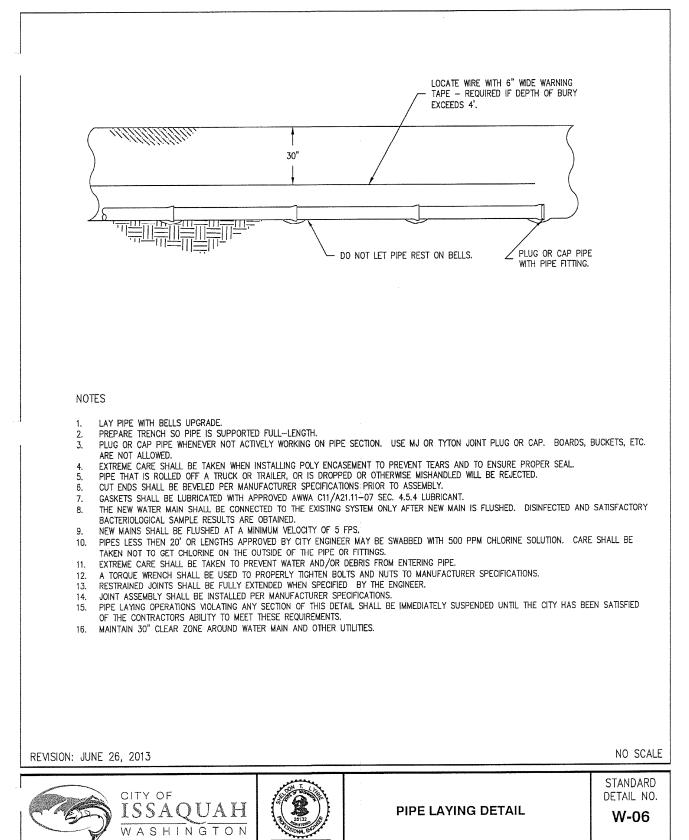


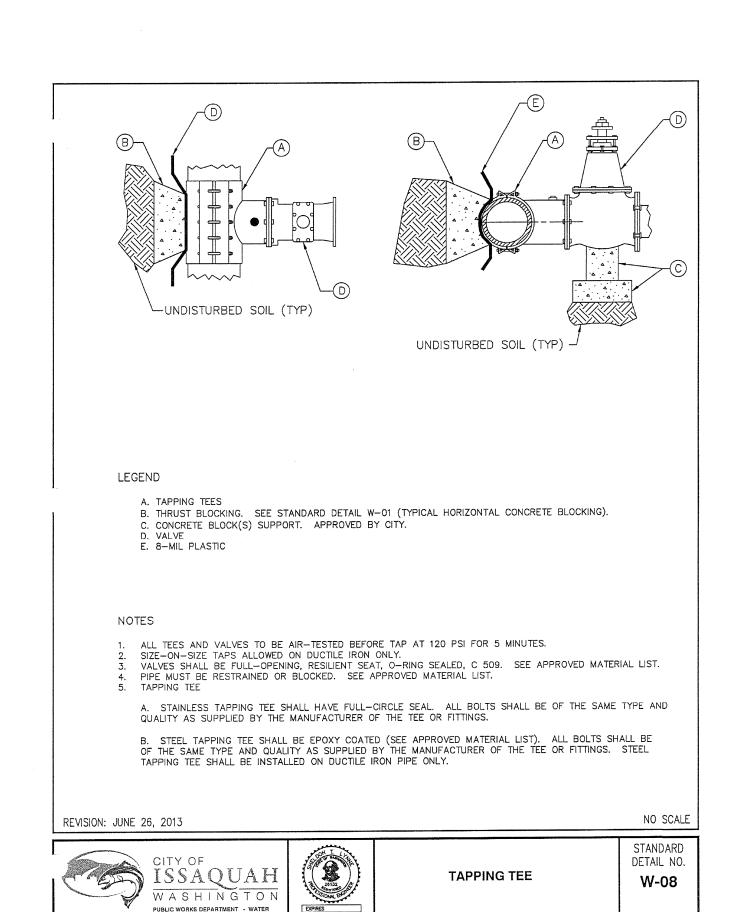


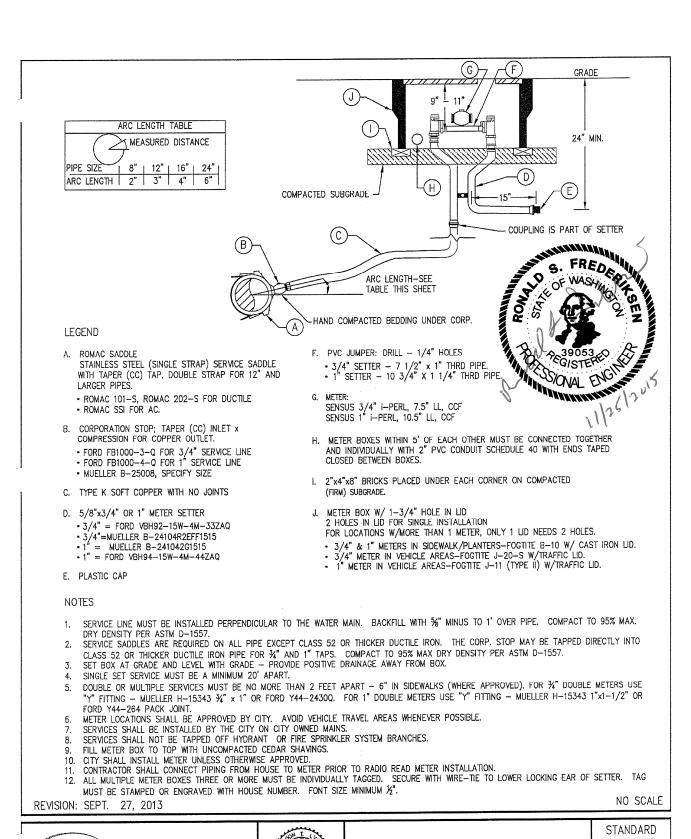
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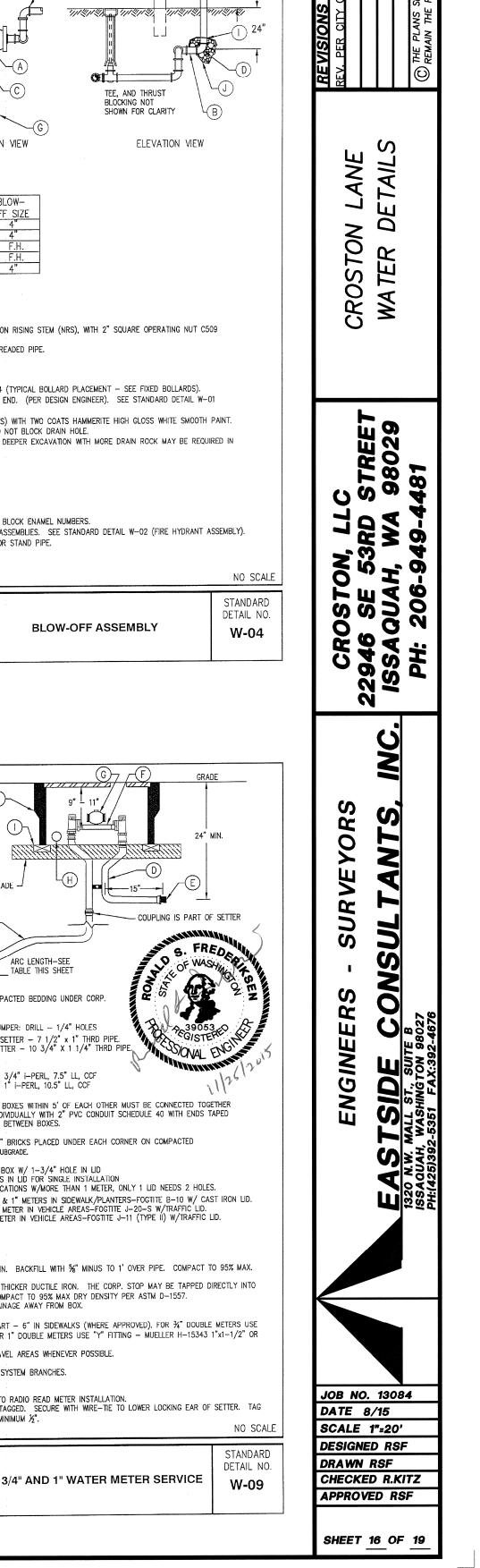








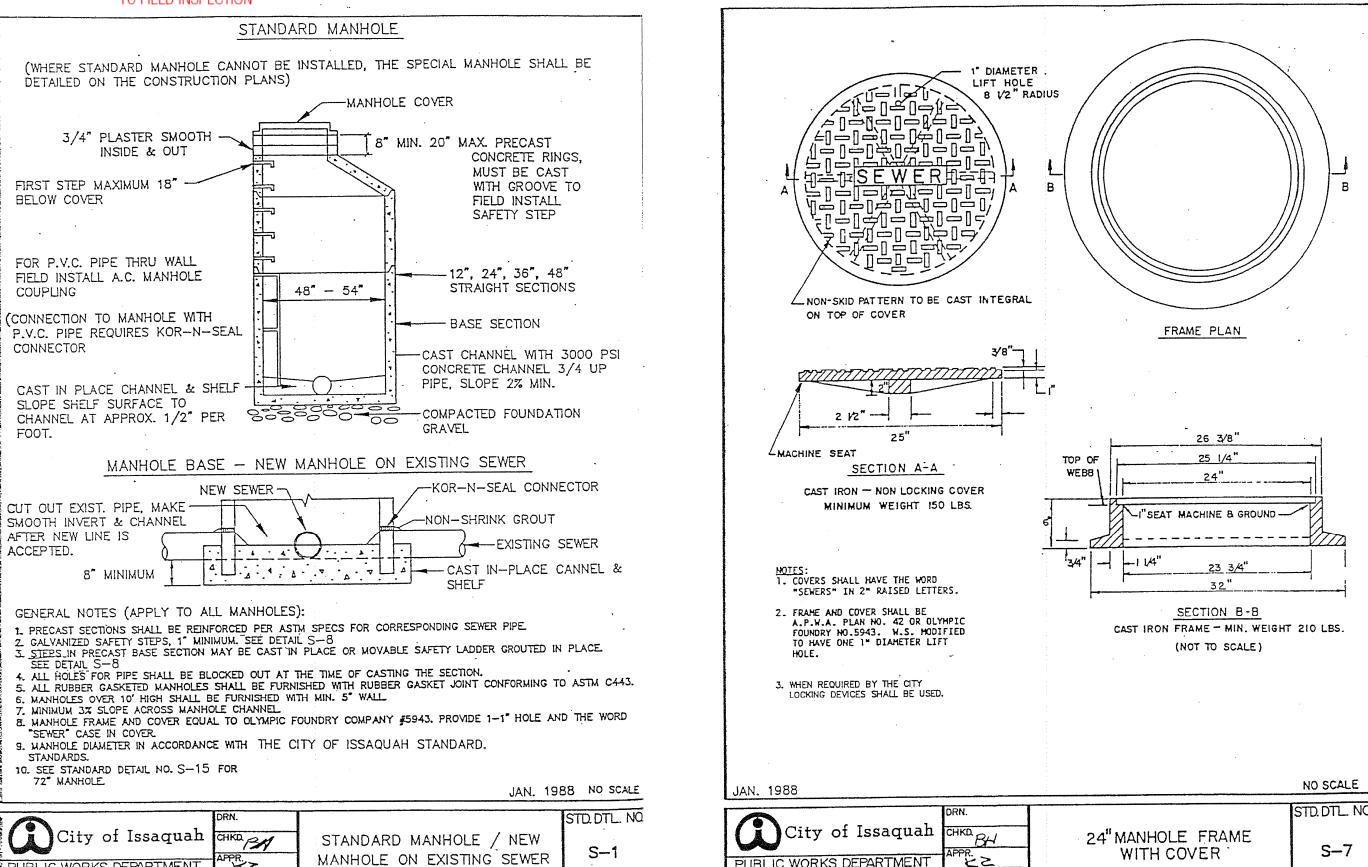
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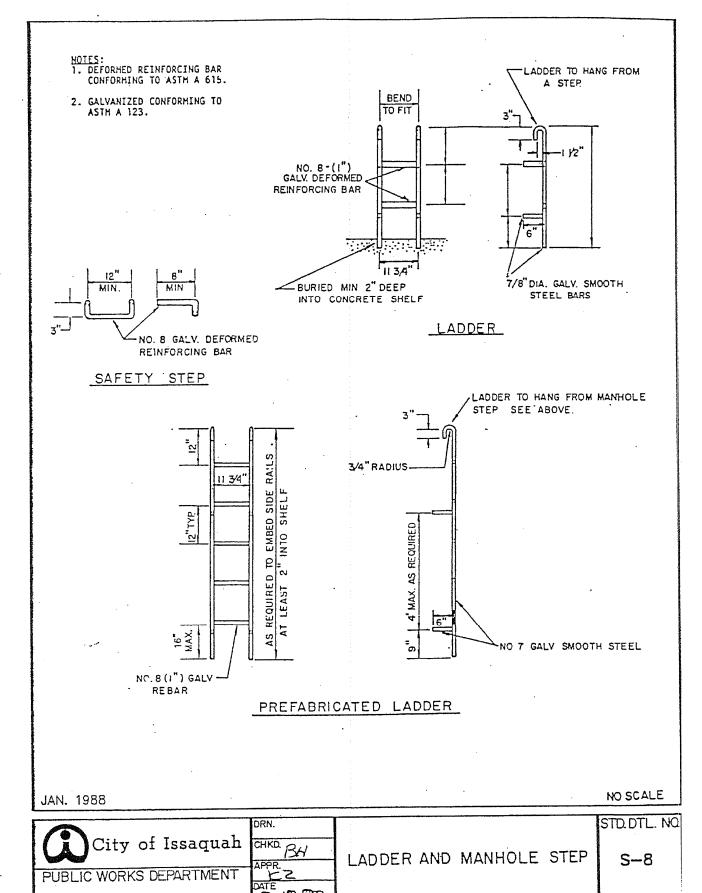


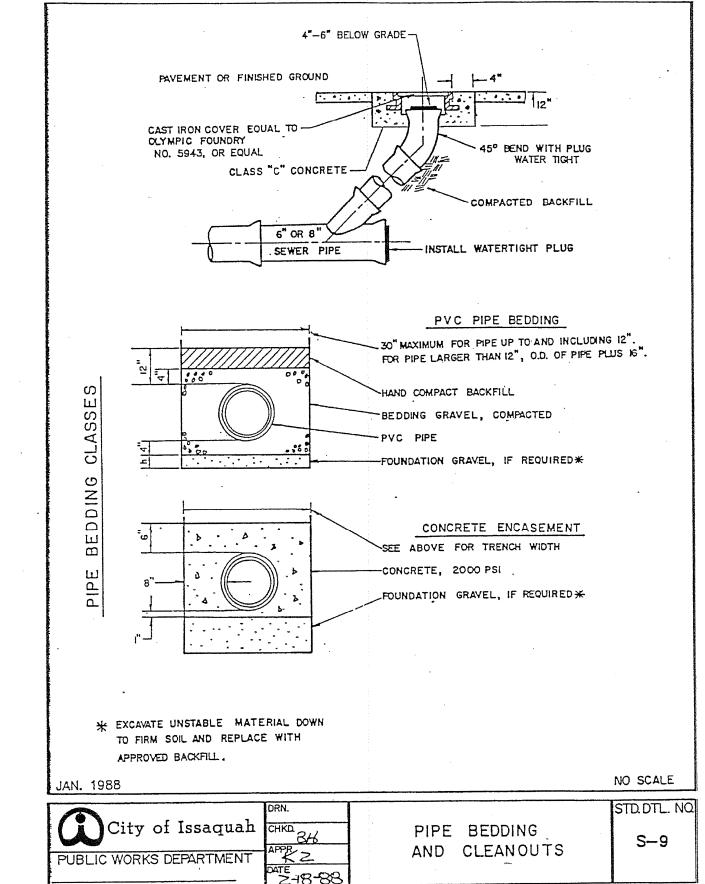
CITY OF ISSAQUAH · ENGINEERING REVIEW TO FIELD INSPECTION

CROSTON LANE SHORT PLAT SITE WORK PERMIT SET SW15-00033

SECTION 22, TOWNSHIP 24 NORTH, RANGE 6 EAST, W.M. CITY OF ISSAQUAH, WASHINGTON







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JOB NO. 13084

DATE 8/15

DRAWN RSF CHECKED R.KITZ

FIG. 7-013

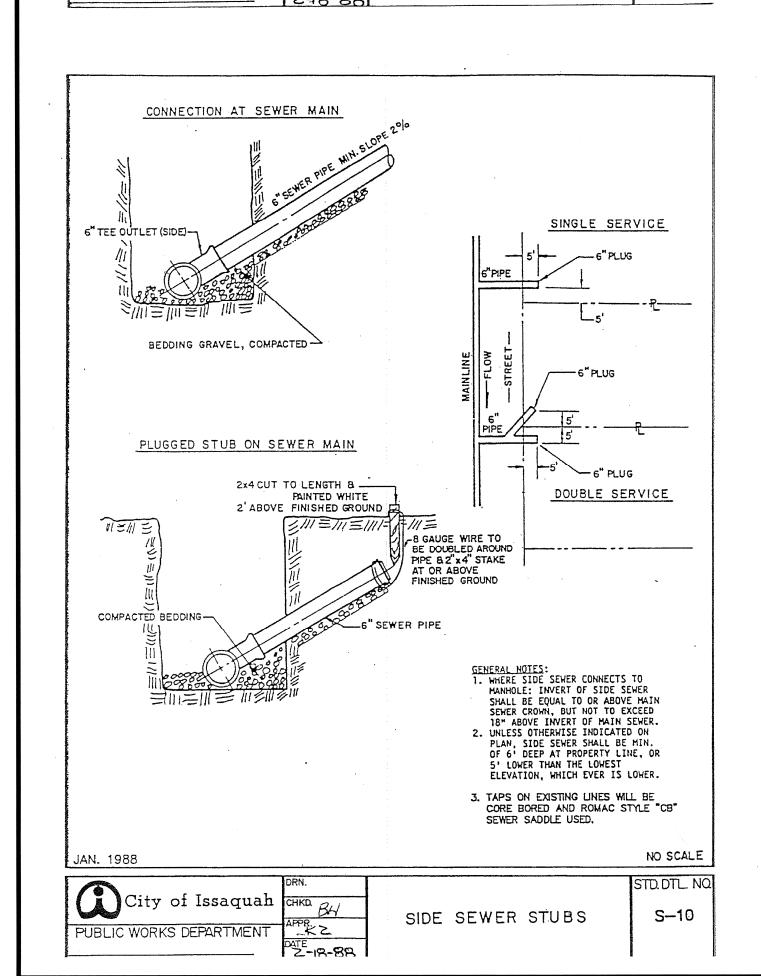
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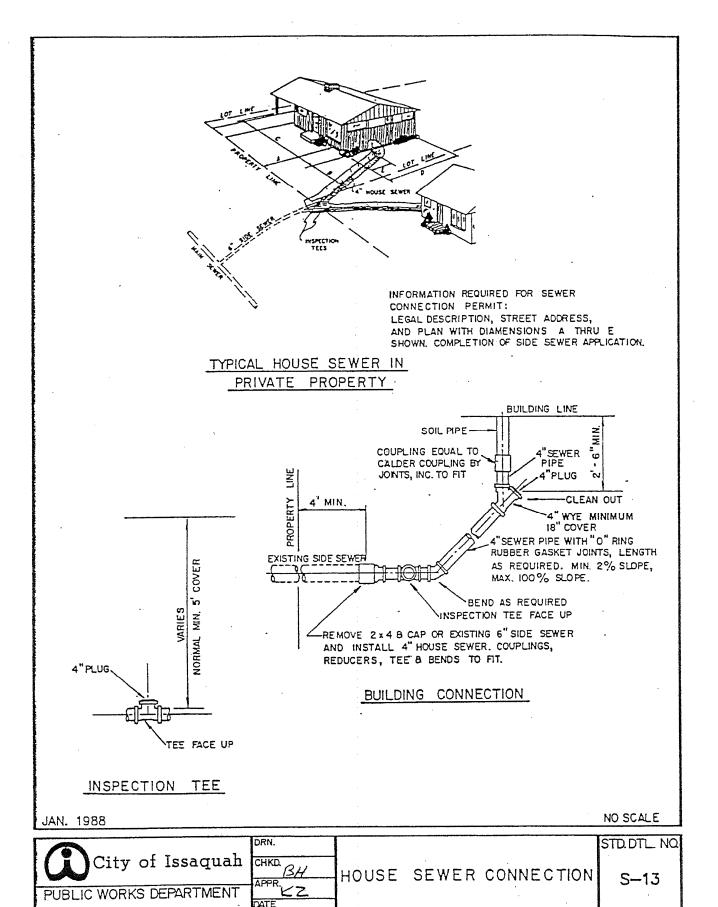
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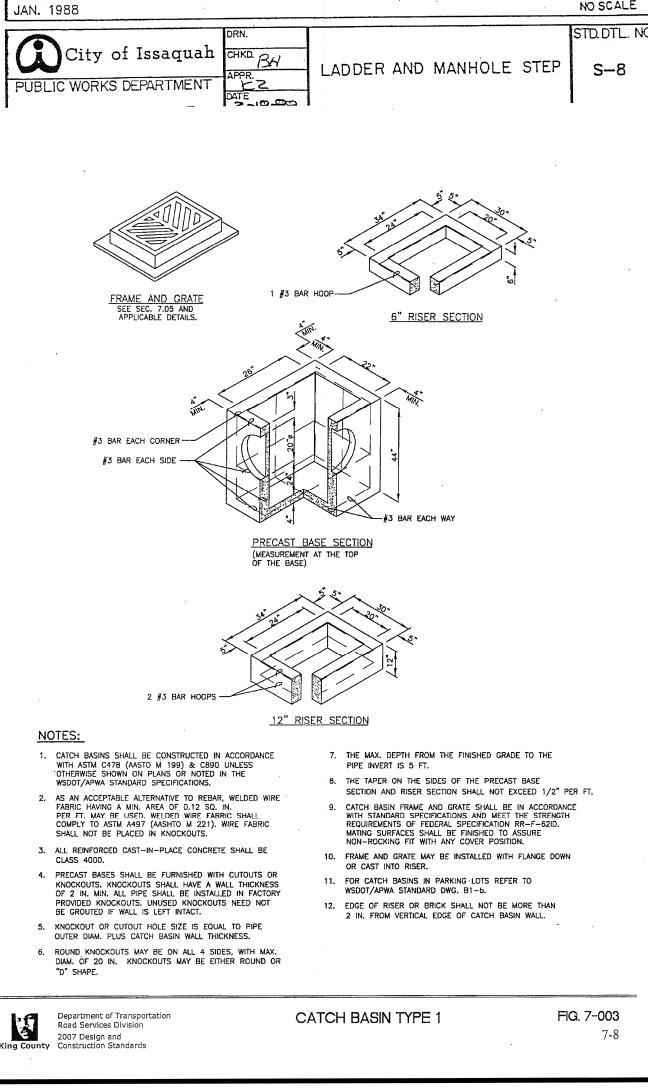
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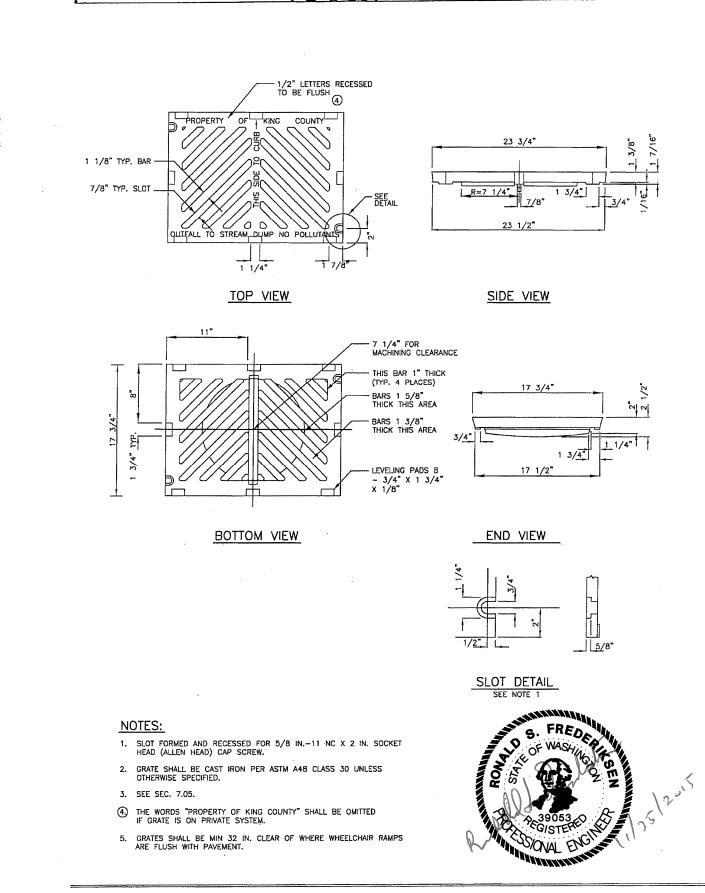
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SHEET <u>17</u> OF <u>19</u>



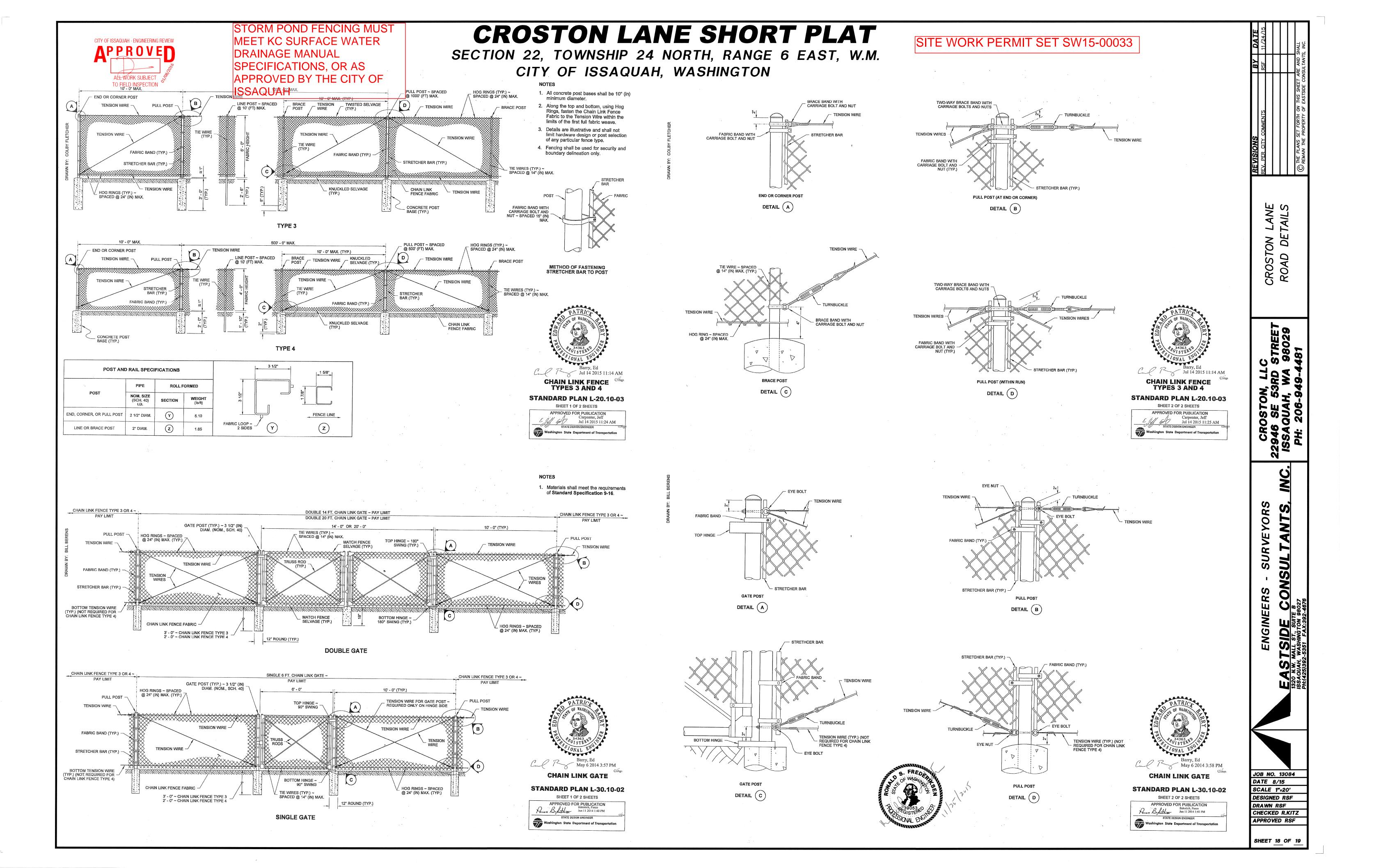






STANDARD GRATE

Department of Transportation Road Services Division



CROSTON LANE SHORT PLAT

SECTION 22, TOWNSHIP 24 NORTH, RANGE 6 EAST, W.M. CITY OF ISSAQUAH, WASHINGTON

DESIGN

These General Notes, whether attached or not to the approved plans, shall become a part of the approval. 1. All work and materials shall be in accordance with the

- "Standard Specifications for Road, Bridge, and Municipal Construction," Washington State Department of Transportation and American Public Works Association, Washington State Chapter, 1988 Edition. Together with the latest edition of the City of Issaquah Developer Extension Agreement.
- 2. An approved copy of these plans must be on site whenever construction is in progress.
- 3. It shall be the sole responsibility of the Contractor to obtain street use and any other related permits prior to any construction activity in City right-of-way.
- Prior to any construction activity, the City of Issaquah Engineering Department (391-1004) must be contacted for a preconstruction meeting.
- 5. All locations of existing utilities shown hereon have been established by field survey or obtained from available records and should therefore be considered approximate only and not necessarily complete. It is the sole responsibility of the Contractor to independently verify the accuracy of all utility locations shown, and to further discover and avoid any other utilities not shown hereon which may be affected by the implementation of this plan. The Contractor shall contact the Utilities Underground Location Service (1-800-424-5555) prior to construction. The owner or his representative shall be immediately contacted if a utility conflict exists.
- 6. The sanitary sewer system shall be constructed according to the approved plans which are on file in the City of Issaquah Engineering Department. Any deviation from the approved plans will require written approval from the proper agency.
- 7. All new sanitary sewer lines shall be sealed off at the existing trunk connection point until all upstream construction is completed, cleaned, tested, lamped, and accepted by the City of Issaquah. All construction debris and water shall be removed from pipe prior to opening seal.
- Manholes and Lids:
 - A. All manholes shall be Issaquah Standard Plan No. S-1 (48" I.D.) type, with eccentric cones.
 - Outside drop connections shall be constructed in conformance to Issaquah Standard Plan No. S-2.
- C. All manholes shall have a minimum drop of 0.10 feet between inverts.
- D. It shall be the responsibility of the Contractor to adjust all manhole tops to match final asphalt elevations and ground elevations in landscaped areas.
- 9. Sewer Pipe, Bedding and Trench Compaction:
 - A. All sewer pipe shall be one of the following as designated:
 - 1) PVC, conforming with ASTM D-3212.
 - 2) Ductile Iron, Class 50, conforming to AWWA C-104.
 - 3) Pipe may be any of the above provided:
 - Pipe joints must be of the same materials, and Where a pipe material is specifically shown on the plan, that material must be used.
 - B. Pipe bedding shall be APWA Type "F" with material conforming to Section 9-30.7A (2).
 - C. Trench backfill shall conform to the Developer Extension Agreement Technical Specifications (3-2).
- 10. Side Sewer Laterals:
 - A. Side sewers shall be 6" minimum diameter at 2.0% minimum
 - Side sewers shall be tested for leakage at the same time the main line sewer is tested. If not tested together, provide test tees at sewer main connections.
 - C. Buildings with greater than 10 units shall be serviced by one of the following methods:
 - 1) Double 6" diameter services connected to trunk by standard tees or into manholes.
 - 2) Single 8" diameter service with cleanout, connected to trunk into manholes only. (Alternate connection methods are depicted on plans.)
 - D. All lateral connections to sewer mains shall be made with a wye or sweeping tee.
- 11. Construction of dewatering (groundwater) system shall be in accordance with the APWA Standard Specifications, Section 61-3.02, 1981 Edition.
- 12. Whenever sewers must cross under water main, the sewer shall be laid at such an elevation that the top of the sewer line is at least 36 inches below the bottom of the water main.
- 13. Buildings shall not be permitted within 10 feet, or carports within 5 feet, of the spring line of any sanitary sewer pipe.
- 14. Prior to occupancy, the Developer shall grant 15-foot wide sanitary sewer easements to the City of Issaquah.
- 15. Cleanouts shall be provided at the right-of-way line for laterals entering the public right-of-way.
- 16. Construction shall be limited to Monday through Friday. Hours of operation shall be from 7 AM to 6 PM, or as otherwise approved by the Public Works Department.

A. Design Standards

These Design Standards set forth minimum standards for the planning, design, and construction of water facilities. The work shall be done in accordance with the Plans and specifications prepared by the Engineer and approved by the City. These Standards do not include design of special facilities, such as Pump Stations or Reservoirs. These special facilities require unique design requirements and will be subject to individual review by the City. All work and materials shall conform to AWWA standards. As

a preliminary guide, the following general standards of construction and materials are set forth: 1. Design shall comply with the Issaquah Municipal Code (IMC), policies and criteria set forth in the City of Issaquah's Water System Plan, and design requirements as defined within these

- 2. Pipe shall be Class 52 ductile iron.
- 3. Fittings must be Ductile Iron (cement lined).
- 4. Use of restrained joints is preferred as a standard restraint system. Restraint system shall be clearly identified on the plans and record drawings.
- 5. Pipe runs from main line to standard hydrants less than 50 feet in length must be a minimum of 6 inches. Pipe runs from main line to standard hydrants more than 50 feet in length must be a minimum of 8 inches.
- 6. The maximum distance between fire hydrants in single-family use district zones shall be 500 feet. The maximum distance between fire hydrants in commercial, industrial, and apartment (including
- duplex) use district zones shall be 300 feet. 7. All hydrants newly installed in single-family residential areas shall be supplied by not less than 8-inch mains and shall be capable of delivering 1,000 g.p.m. fire flow over and above average maximum demands at the farthest point of the installation.
- 8. Air and vacuum release valves shall be installed at principal high points in the system.
- 9. Dead-end lines are not permitted except as required for frontage improvements. when unfeasible due to topography, or inability to gain easements, in which case hydrants may be provided at the end of the main.
- 10. System improvements required for multi-family/commercial/industrial developments will be considered and defined by the City at the time service is requested. All costs for domestic service, fire protection, storage, pumping facilities and flow rate control of the supply will be borne by the commercial/industrial developer.
- 11. Work shall be done only by Contractors experienced in laying public water mains.
- 12. Mains shall be laid only in dedicated streets or in easements which have been granted to the City. A street is normally not considered dedicated until the plat which created it has been filed with the King County Recorder.
- 13. Valves shall be placed on all branches from feeder mains, at intersections, between mains and hydrants, between mains and reservoirs, and between mains and pumps. No length of pipe greater than 600 feet shall be left without valve control. A valve shall be located at the end of all dead-end lines when a future extension is anticipated by the City Engineer.
- 14. Valved tees and crosses shall be provided where future extensions are expected by the Engineer.
- 15. Pressure Reducing Valves- Main line pressure reducing stations, built according to the City Standard Details and approved as to size by the City Engineer, shall be installed where required to maintain a maximum line pressure of 150 psi. Individual pressure-reducing valves are the responsibility of the owner for all services on mains with a pressure of more than 80 psi and shall be located on private property in accordance with the UPC.
- 16. Placement of surface appurtenances (manhole lids, water valve lids, etc.) in tire track of traffic lanes shall be avoided whenever possible. Meter vaults shall be located outside the pedestrian
- 17. Backflow prevention devices shall be installed where the possibility of contamination of the water supply system exists and/or as required by the City, and shall meet the requirements of the WAC 246-290-490 "Cross-Connection Control". All backflow prevention assemblies installed shall be on the Washington State Department of Health (DOH) list of approved backflow prevention assemblies, most recent edition at the time of installation, and installed according to the Standard

Materials

1. General

All materials and equipment shall be new and undamaged. Where possible, the same manufacturer of each item shall be used throughout the job.

substitutions will be allowed without prior approval by the Engineer.

All materials not specifically referenced shall comply with applicable sections of ANSI, ASTM, AWWA or the APWA/WSDOT Standard Specifications.

Approved manufactures and model numbers of various materials are listed in Appendix B, Approved Materials, of these Standards. When specific manufactures or models are listed, no

2. Ductile Iron Pipe

Ductile iron pipe shall conform to AWWA Standard C151, Thickness Class 52 or as indicated on the Drawings. Pipe and fittings shall have cement mortar lining conforming to AWWA C-104. Joints shall be mechanical joint or push-on joint and shall conform to AWWA C-111.

Ductile iron fitting shall conform to AWWA Standard C-110. Mechanical or push-on joints shall conform to AWWA Standard C-111. Flanged joints shall conform to ASA Standard B-16.1, Class 125. All fittings shall be mortar lined.

Polyethylene Pipe encasement for Ductile Iron Pipe shall be used at the direction of the City Engineer and shall conform to AWWA Standard C-105.

3. Brass Pipe and Fittings

Where brass pipe is specified, the pipe shall be standard weight, Schedule 40, ASTM B43. Fittings shall be brass or copper.

4. Gate Valves

Shall conform to AWWA C-515 or C-509, be Iron Body, Brass or Bronze trimmed, resilient seat, double "O" ring seal, non-rising stem, for a minimum of 150 PSI working pressure unless other is specified, with standard two (2) inch operating nut and standard opening rotation shall be counter clockwise. Gate valve 3" and larger shall have flange connections for above ground service, or flange or mechanical joint connection for buried service. (See Standard Details.)

5. Butterfly Valves

Shall conform to AWWA Standard C504-74 or latest revision thereof. Unless otherwise specified, valves shall be Class 150 or greater, shaft seals shall be "O" ring type, standard opening rotation shall be counter clockwise and the operating nut shall be standard 2"

Fire hydrants shall have 5-1/4 inch main valve opening (MVO) with brass on brass or brass on stainless steel seating as specified for 36-inch trench, unless otherwise designated; break-away flange at ground line; 6-inch M.J. connection with suitable lugs if tie rods are to be used; "O" ring stem seal; two 2-1/2 inch hose connections National Standard Thread; pumper connection shall be 4 inch with Seattle Standard Thread with Stortz fitting. Operating nut shall be 1-1/4 inch pentagon and shall open counter clockwise. Hydrant shall be so constructed that direction of facing of pumper connection may be rotated to face the roadway. Hydrants shall comply with AWWA C-502. Unless otherwise specified, hydrant shall be of traffic type with break-away flange construction.

Valve boxes shall be cast or ductile iron, two (2) piece, Rich 940. The top section shall be 18" slip type with 2" "deep skirt" cover. (See Standard Details)

Romac type stainless steel saddle. Single strap for pipe sizes under 12" dia., double strap for 12"

and larger pipe sizes. (See applicable Standard Details)

9. Copper Service Pipe Copper service pipe for underground water service 2" or smaller shall be Type K, soft copper, annealed, seamless, and conforming to the requirements of ASTM B88. (See applicable Standard Details)

Plastic service pipe shall be manufactured from high molecular weight polyethylene defined by ASTM-2737, NSF Standard 14, and AWWA C901Pipe shall be iron pipe or copper size (See Standard Details)

11. Air and Vacuum Release Valves

All piping shall be Type K copper brass pipe. Fittings shall be brass. Valves shall be located outside of traffic areas, behind curb or sidewalk. (See Standard Details)

Hydrant guard posts shall be reinforced concrete posts, 6" X 6" X 6" Iong. Treated Douglas Fir, drilled with two -1" holes each way to provide breakaway safety features. (See Standard Details)

Valve marker posts shall be reinforced concrete posts, 4" X 4" on one end and 6" X 6" on the other end, 42" long. Stenciled in 2-in. letters referencing distance to valve in feet and inches. (See Standard Details)

One:three:six (1:3:6) mix with six inch (6") maximum slump. (See Standard Details)

All bolts shall be of the same type and quality as supplied by the manufacturer of the pipe or fittings and shall conform to WSDOT Standard Spec. 9-30

Ring-type cloth insert rubber gaskets 1/16-inchithick equal to Rainbow or Garlock.

17. Foundation Gravel

Foundation gravel, known as "Ballast", shall be coarse graded gravel or crushed rock that conforms to WSDOT Standard Spec. 9-03.9(1). Bank run passed through a 3-inch screen may be used provided that it is, in the opinion of the Engineer, uniformly graded and otherwise suitable.

18. Bedding Concrete

Bedding concrete shall be mixed from materials acceptable to the Engineer. The mix shall be either Cadman Proflow 11021 CDF or a design mix having a 30-day compressive strength of

19. Bedding Material

Pipe zone bedding material shall consist of crushed, processed, or naturally occurring granular material free from organic materials or other extraneous or objectionable materials. The material shall have such characteristics of size and shape that meet the specifications for grading and quantity as defined in WSDOT Standard Specs. 9-03.12(3).

20. Imported Backfill Material

Imported backfill material, known as "Common Borrow", shall consist of no rocks greater than 3" in any dimension, be free from wood, bark, roots or other extraneous material, and shall meet the specifications as further defined in WSDOT Standard Specs. 9-03.14(3).

21. Asphalt Concrete

Hot Mix Asphalt (HMA) pavement shall conform to the technical requirements of the WSDOT Standard Spec. 5-04 for HMA Cl 1/2" (wearing) or Cl 1"(other).

22. Crushed Surfacing

For use in the restoration of excavated areas, Base Course, Top Course and Keystone material shall be crushed gravel, free from wood, roots, bark and other extraneous materials and shall conform to WSDOT Standard Specs. 9-03.9(3).

23. Pressure Reducing Valve (PRV) Station

Unless otherwise shown on the construction plans, a standard pressure reducing station shall be sized and located to maintain maximum and minimum pressure limits. Check PRV manufacturer guidelines for maximum pressure differentials. PRV stations shall be located outside of traveled way. (See Standard Detail)

24. Vault Installation

Vaults for water facilities shall be constructed at the locations shown in the plans and in accordance with the plans, Standard Details and as directed by the Engineer.

The vault shall be placed on firm soil. If the material is inadequate, the contractor shall use foundation gravel to support the vault. The vault shall be plumb, watertight, and adjusted to match the finished grade or as directed by the Engineer. All interior walls shall be coated with minimum 20 mils thickness of Tnemec white epoxy paint applied per manufactures specifications. Grading shall direct surface water away from the vault.

Vault floor shall drain to daylight or to location shown on the plan. Drain pipe shall be minimum 4" diameter. (See Standard Detail)

SITE WORK PERMIT SET SW15-00033

STANDARD ESC PLAN NOTES

The standard ESC plan notes must be included on all ESC plans. At the applicant's discretion, notes that in no way apply to the project may be omitted; however, the remaining notes must not be renumbered. For example, if ESC Note #3 were omitted, the remaining notes should be numbered 1, 2, 4, 5, 6, etc.

- 1. Approval of this erosion and sedimentation control (ESC) plan does not constitute an approval of permanent road or drainage design (e.g., size and location of roads, pipes, restrictors, channels, retention facilities, utilities, etc.).
- 2. The implementation of these ESC plans and the construction, maintenance, replacement, and upgrading of these ESC facilities is the responsibility of the applicant/ESC supervisor until all
- 3. The boundaries of the clearing limits shown on this plan shall be clearly flagged by survey tape or fencing, if required, prior to construction (SWDM Appendix D). During the construction period, nodisturbance beyond the clearing limits shall be permitted. The clearing limits shall be maintained by the applicant/ESC supervisor for the duration of construction.
- 4. Stabilized construction entrances shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures, such as constructed wheel wash systems or wash pads, may be required t ensure that all paved areas are kept clean and track out to road right of way does not occur for the duration of the project.
- 5. The ESC facilities shown on this plan must be constructed prior to or in conjunction with all clearing and grading so as to ensure that the transport of sediment to surface waters, drainage systems, and adjacent properties is minimized.
- 6. The ESC facilities shown on this plan are the minimum requirements for anticipated site conditions. During the construction period, these ESC facilities shall be upgraded as needed for unexpected storm events and modified to account for changing site conditions (e.g. additional cover measures, additional sump pumps, relocation of ditches and silt fences, perimeter protection etc.) as directed by
- 7. The ESC facilities shall be inspected daily by the applicant/ESC supervisor and maintained to ensure continued proper functioning. Written records shall be kept of weekly reviews of the ESC facilities. 8. Any areas of exposed soils, including roadway embankments, that will not be disturbed for two
- consecutive days during the wet season or seven days during the dry season shall be immediately stabilized with the approved ESC methods (e.g., seeding, mulching, plastic covering, etc.). 9. Any area needing ESC measures that do not require immediate attention shall be addressed within
- during the dry season, bi-monthly during the wet season, or within twenty four (24) hours following a storm event. 11. At no time shall more than one (1) foot of sediment be allowed to accumulate within a catch basin.

10. The ESC facilities on inactive sites shall be inspected and maintained a minimum of once a month

- All catch basins and conveyance lines shall be cleaned prior to paving. The cleaning operation shall not flush sediment-laden water into the downstream system. 12. Any permanent retention/detention facility used as a temporary settling basin shall be modified with
- the necessary erosion control measures and shall provide adequate storage capacity. If the facility is to function ultimately as an infiltration system, the temporary facility must be rough graded so that the bottom and sides are at least three feet above the final grade of the permanent facility.
- 13. Cover measures will be applied in conformance with Appendix D of the Surface Water Design

RECOMMENDED CONSTRUCTION SEQUENCE

A detailed construction sequence is needed to ensure that erosion and sediment control measures are applied at the appropriate times. A recommended construction sequence is provided below:

- 1. Hold the pre-construction meeting.
- 2. Post sign with name and phone number of ESC supervisor (may be consolidated with the required
- notice of construction sign).
- 3. Flag or fence clearing limits.
- 4. Install catch basin protection, if required.
- 5. Grade and install construction entrance(s) 6. Install perimeter protection (silt fence, brush barrier, etc.).
- 7. Construct sediment ponds and traps.
- 8. Grade and stabilize construction roads.
- 9. Construct surface water controls (interceptor dikes, pipe slope drains, etc.) simultaneously with clearing and grading for project development.
- 10. Maintain erosion control measures in accordance with King County standards and manufacturer's recommendations.
- erosion and sediment control is always in accordance with the King County Erosion and Sediment

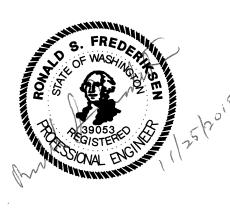
11. Relocate erosion control measures, or install new measures so that as site conditions change, the

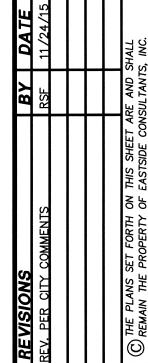
- 12. Cover all areas that will be unworked for more than seven days during the dry season or two days during the wet season with straw, wood fiber mulch, compost, plastic sheeting, or equivalent.
- 14. Seed, sod, stabilize, or cover any areas to remain unworked for more than 30 days.

13. Stabilize all areas within seven days of reaching final grade.

15. Upon completion of the project, stabilize all disturbed areas and remove BMPs if appropriate.







LANE NOTE CROSTON TANDARD

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DATE 8/15

DRAWN RSF CHECKED R.KITZ APPROVED RSF

JOB NO. 13084 SCALE 1"=20' DESIGNED RSF

SHEET 19 OF 19